Heritage Series

Heritage 4000

Heritage 3000

Heritage 2000

Heritage Extender

Heritage 1000

MIDAS
DESIGNED FOR A PURE PERFORMANCE

Heritage 4000

The Midas Heritage 4000 is an evolution of the award winning Heritage 3000 with an additional 16 more busses, which has resulted in what many would regard as the ultimate stage monitor console.

As monitor applications have become more demanding, specifically with the increased usage of in-ear systems, it is now common to see multiple consoles bussed together, in order to achieve the required amount of outputs. The Heritage 4000 allows an engineer to run up to 40 mixes (plus stereo masters) from a single console, benefiting from the world-renown Heritage buss flexibility, and "road proven" digital assistance.

As with all Heritage, Legend and Siena consoles the Heritage 4000 can be linked via the Solo Tracking System to the Klark Teknik Helix system allowing instant access to the EQ for any input or output simply by pressing the solo key on the desk.

A beautifully elegant solution.

Key Features:

Frames: 48, 56, and 64

EQ: 4 band fully-parametric with Bell shelf selection on Hi and Lo filters

Direct Output: Front panel switchable and level control

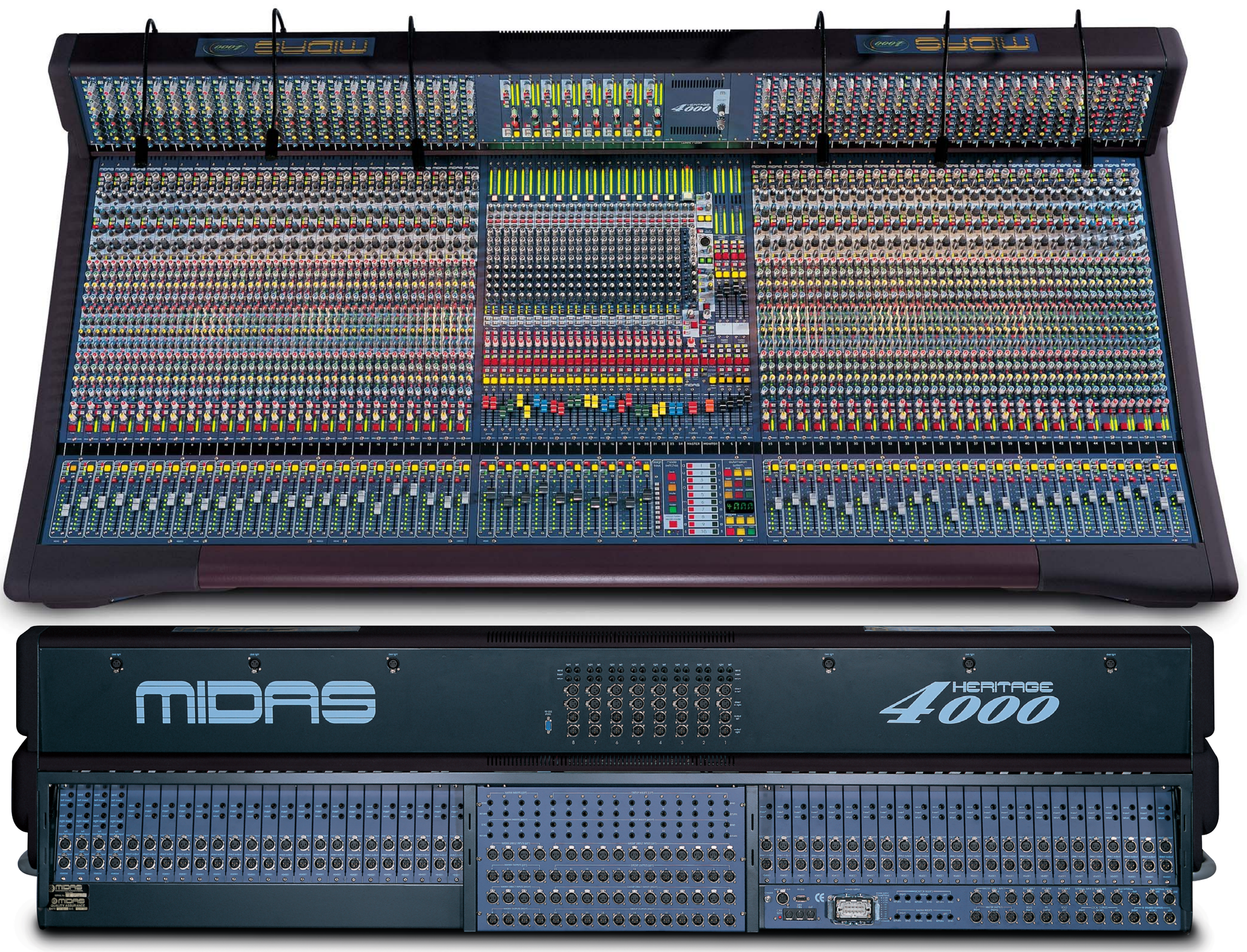
SIS™ panning with IMAGE control

24 Mix Outputs: front panel configurable per application

8 Stereo Aux outputs, 10 VCAs, 10 Automute groups, 27 x 8 matrix

Automation: snapshot automation of VCA assignment, all mutes, all input channel and VCA levels

STS - compatible Solo Tracking System


MIDAS
HERITAGE 4000

Heritage 4000

Mono Input Module
The Mono Input Module is a fully featured mic/line channel strip incorporating the classic XL4 mic-pre and MIDAS 4-band parametric equaliser with 24 adjustable, dual mode Group Mix controls and eight additional stereo Aux Mixes. The 24 configurable Mix rotaries operate as bus assign on/off switches as well as conventional Aux sends, controlling the signal levels sent to the corresponding Aux buses. These 24 Mix buses may be configured as Mono Aux, Stereo Aux or Post Pan Group, selectable in pairs. In Stereo Aux mode, the lefthand control of each pair functions as a pan control while the righthand control adjusts the Aux level. The channel insert points may be switched pre- or post-EQ.

Each mono channel features the MIDAS SIS™ spacial imaging system for use with Left, Centre Right loudspeaker systems. When SIS™ is active, the Image control modifies the action of the pan control so as to adjust the amount of centre panned signals which are fed equally to both left and right outputs as well as to the centre. This can be particularly useful for distributing the load of high energy, centre-panned sounds across all FOH loudspeaker arrays. A constant power law ensures that the overall balance will not change as the Image control is adjusted.

Stereo Input Module
Like the Mono Input Module, the stereo is a comprehensive, mic/line channel strip incorporating the classic MIDAS 4-band equaliser and 24 adjustable, dual mode Group Mix controls that operate as bus assign on/off switches and Aux sends. The input gain and EQ control settings apply to both the left and right signal paths. The Aux modes are similar to those provided on the mono channel, though when configured to mono, the signal is derived from a sum of the left and right channels. Like the mono version, the channel insert points may be switched pre or post EQ. Bargraph metering indicates the pre-fader peak input levels while a Mono button connects the post-fader channel signals to the Mono Master fader. Left and right pan controls are used for setting the stereo positioning of the two channels and a Stereo routing button connects the post-fader channel signals to the stereo bus via the pan controls.

Input faders
The Input faders are linked to an intuitive, VCA level automation system, which is mainly controlled from the centre section of the console, though status buttons and indicators are located adjacent to each fader. Each fader has an automation safe button that removes it from automation control as well as a Fader Safe button which removes the fader from any form of remote control. The set switch is used to program the channel automute and VCA assignment when creating subgroups. Status LEDs are used to show the VCA 'virtual' fader level as well as to prompt the operator when nulling the faders. The focus is on fast, intuitive use in a live performance situation.

Group Module
The Group Module provides a highly flexible stereo Group master control strip with one direct input per Group that can be mixed with the existing bus signal. These direct inputs may be employed as extra effects returns or for console bus linking.

Eight matrix level controls are provided per channel and 'per channel' pre/post switching is provided to determine whether the Group's matrix outputs are derived pre or post the Group fader. VCA switches are fitted to assign the audio subgroups to VCA control via VCA masters 9 and 10.

Clear level metering monitors the signal levels from -36dB to +21dB. The Group insert point may be switched so that the signal sent to the matrix mixes is either pre or post the insert point. A large, illuminated mute button may be used for manual channel muting or may be controlled from the Automute snapshot automation system.

Heritage 4000

Masters Module
Full Left / Centre / Right metering is provided as part of the Masters Module along with a large Solo-in-Place switch. Direct inputs may be summed into the left and right buses for console linking, or other applications, and these may be switched pre or post the master insert point. Each of the eight Matrix Master controls has Left/Right/Sum source switching and the matrix feeds may be switched pre or post the Master fader. This module also includes the talkback controls, overall control of the master stereo balance and single fader control over the stereo mix level. The master mute buttons are integrated into the snapshot automation system and there's a VCA link to allow the mono output level to track that of the stereo master fader.

The 8 dedicated Stereo Aux Masters are on the 'Pod' above, along with their Solo, Mute and balance controls. Located here are also the Stereo Aux Output meters assignment buttons to VCAs 9 and 10, Insert, Talk and Buss Direct input.

Monitor Module
The Monitor Module includes peak metering of the left and right monitor signals, a variable frequency test oscillator with a 1kHz fixed tone switch, pink noise generation and a talkback mic input. The talkback mic may be routed to an external XLR or to the console's internal talk system, in which case local outputs are dimmed by 20dB. The signal generator section may be routed to the console's internal Talk to All and Talk Select busses and/or to an external XLR connector. The Talk to All switch takes priority over other output talk switches so that the signal generator section or mic can be routed to all outputs.

A headphone monitoring section is also fitted along with phase reverse, left/right reverse switching mute and solo buttons for the monitor output. A single fader provides overall control over all three local monitor outputs and a switchable Solo Add mode allows multiple channels to access to the Solo bus.

Matrix Module
Each Matrix Module provides full fader control and level metering for four matrix outputs. Matrix outputs may be individually assigned to VCA control from the master fader and Talk buttons may be used to include the matrix outputs in the talkback system. Safe buttons remove the matrix output from snapshot automation control and Solo switches send the matrix signals to the PFL mono and AFL buses.

VCA Master Faders
The VCA Master Faders are equipped with Solo and Mute buttons, plus an Auto Safe switch that disables snapshot automation control of both the VCA master faders and VCA mutes. If the Solo button is pressed momentarily, it will latch on whereas if it is pressed and held for more than one second, the latching is disabled. The same status LED system is employed as on the channel faders to show the VCA 'virtual' fader settings and to assist the user in nulling the faders when necessary. The status LEDs turn off when the console is in VCA or mute assignment modes.

Virtual Fader Recall mode generates a VCA fader level based on the value at the time the last snapshot was stored. This level is added to the physical fader level (effectively a 'relative' mode) and the virtual fader level is displayed as a vertical bar of status LEDs.

Automation System
The Heritage 4000 includes a highly sophisticated yet intuitive Mute and VCA automation system designed specifically for live performance. Numerical readouts of Act and Scene numbers is provided and there's direct Fast Key access to the ten most commonly used snapshots as set up by the user. Snapshots may be stored as either acts or scenes where scenes are organised as sub-sets of acts. Scene recall may be achieved by stepping through the stored scenes in numerical order using the Last/Next buttons, by using the Act/Scene Up/Down buttons or by direct recall using a Fast Key. Alternatively, scenes may be recalled directly via MIDI. A check mode is provided so that virtual fader positions for a newly recalled scene can be viewed before making that scene active.

The automation data is read from two micro cards. A switch is used to select whether card A or B is active. Potential fault situations are also monitored by the status LEDs. Comprehensive automation and MIDI editing is provided, though this may be disabled during performance if required for security reasons.

The fader automation operates in either Real Fader mode or Virtual Fader mode. In Real Fader mode the signal levels are controlled by the physical faders, while in Virtual mode they are controlled by the VCA automation system. In virtual mode, the 11 status LEDs adjacent to the faders show the VCA gain setting regardless of the physical fader position.

In Real Fader mode, the automation system can still provide visual prompts via the status LEDs. Comprehensive editing facilities are provided, including the ability to edit, insert or copy scenes.

Heritage 4000 Overview and Statistics

Console Statistics

The Heritage 4000 (48 channel frame, 44 mono 4 stereo) is a 46 buss console with an additional 27 x 8 output matrix.
The busses are:
8 stereo Aux = 16
24 stereo or mono configurable groups =24
1 stereo master =2
1 mono master=1
1 stereo AFL=2
1 mono PFL=1
TOTAL= 46

10 automute sub groups and 10 VCA sub groups which include VCA sub group muting.

52 input channels plus an additional 42 direct inputs on the group, stereo Aux and master modules.

A total XLR input count of 112 are:
52 channel mic inputs
24 group direct inputs
16 stereo Aux direct inputs
8 matrix bus inject inputs
3 solo bus inject inputs
2 master direct inputs
2 external inputs (2 track return)
1 master bus inject
1 talk mic input
1 talk external input
1 test bus input

A total XLR output count of 105 These are:
44 input channel direct outputs
24 audio group outputs
16 stereo Aux outputs
8 matrix outputs
3 master outputs
3 solo outputs
6 local outputs
1 talk external output

A total of 212 balanced 1/4 inch jacks for inserts. These are:
52 input channel insert sends
52 input channel insert returns
24 audio group insert sends
24 audio group insert returns
16 stereo Aux insert sends
16 stereo Aux insert returns
8 matrix insert sends
8 matrix insert returns
3 master insert sends
3 master insert returns
3 local insert returns

58 long throw faders for mix control with fader position recall and virtual fader functions.

1051 automated switch functions. These are:
480 input channel VCA sub group virtual assign switches
480 input channel mute sub group virtual assign switches
48 input channel mute switches
24 audio sub group mute switches
8 stereo Aux mute switches
8 matrix mute switches
3 master mute switches

A total of 105 peak program meters with 20 LED segments on all outputs and 11 LED segments on input channels.

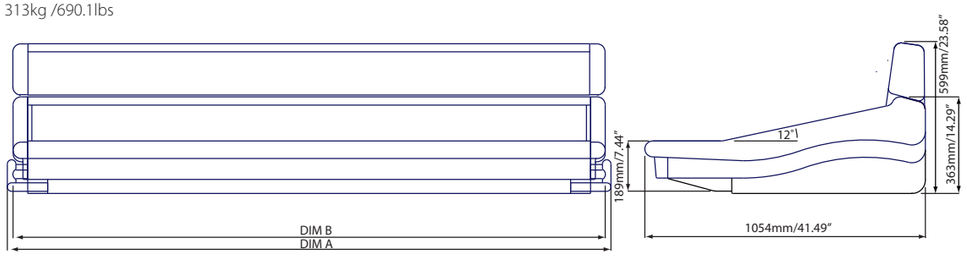
Weights and Dimensions

48 channel - 44 mono/4 stereo
Dim A = 2268mm/89.29" Dim B = 2225mm/87.59"
275kg /606.3lbs

56 channel 52 mono/4 stereo
Dim A = 2559mm/100.74" Dim B = 2516mm/99.05"
313kg /690.1lbs

64 channel 60 mono/4 stereo
Dim A = 2815mm/110.82" Dim B = 2272mm/109.13"
338kg /745.2lbs

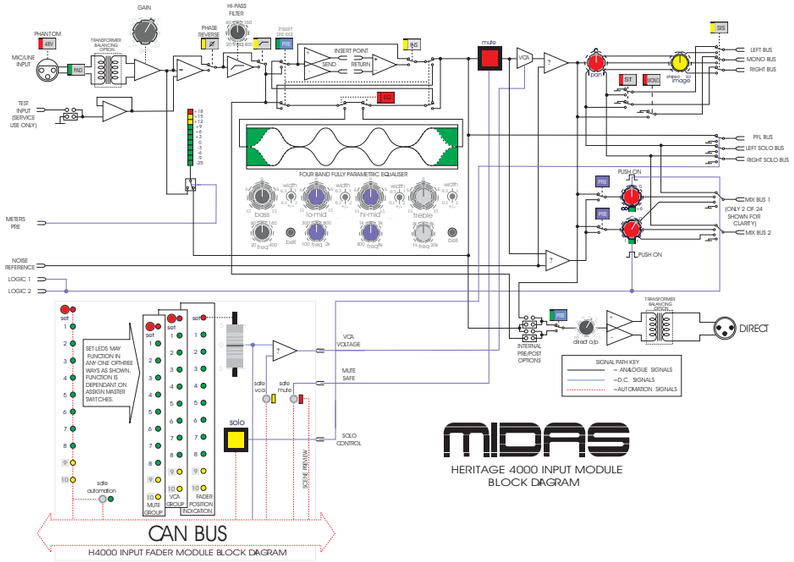
Weights are approximate and out of flight case



Heritage 4000 Specifications

Input Impedance	Mic	2k Balanced	**Equaliser**	
	Line	20k Balanced	Hi pass slope	12dB / Oct
Input Gain	Mic	continuously variable from + 15dB to + 60dB	Hi pass frequency	continuously variable - 3dB point
	Mic + Pad	continuously variable from -0dB to + 35dB	Treble Gain	continuously variable + 15 dB to -15 dB centre detent = 0dB
	Line Level Inputs	0dB	Treble Shelving Freq	continuously variable - 3dB point from 1k to 20k
Maximum Input Level	Mic	+ 6dBu		
	Mic + Pad	+ 31dBu		
	Line Level Inputs	+ 21dBu	Treble Bell Freq	continuously variable centre from 1k to 20k
CMR at 100kHz	Mic (gain + 40dB)	Typ 115dB		
	Mic + Pad (gain 0dB)	Typ 80dB	Treble Bell Bandwidth	continuously variable 0.1Oct. to 2Oct. centre detent = 0.5Oct.
CMR at 1kHz	Mic (gain + 40dB)	>100dB		
	Mic + Pad (gain 0dB)	>60dB		
	Line	>50dB	Hi Mid Gain	continuously variable + 15dB to -15dB centre detent = 0dB
Frequency Response (20 to 20kHz)	Mic to Mix (gain + 60dB)	+ 0dB to - 1dB	Hi Mid Freq	continuously variable centre from 400Hz to 8k
Noise (20 to 20kHz)	Mic EIN ref.150 Ω (gain + 60dB)	-128dBu	Hi Mid Bandwidth	continuously variable 0.1 Oct. to 2Oct. centre detent = 0.5Oct.
System Noise (20 to 20kHz)	Summing Noise (48 channels routed with faders down)	- 80dB	Lo Mid Gain	continuously variable +15 dB to -15 dB centre detent = 0dB
	Line to Mix Noise (48 channels routed at 0dB, pan centre)	-75dB	Lo Mid Freq	continuously variable centre from 100Hz to 2k
Distortion at 1kHz	Mic to Mix (+ 60dB gain, 0dBu output)	<0.03%	Lo Mid Bandwidth	continuously variable 0.1Oct. to 2Oct centre detent = 0.5Oct.
Crosstalk at 1kHz	Channel to Channel	<-90dB		
	Mix to Mix	<-90dB		
	Channel to Mix	<-90dB	Bass Gain	continuously variable + 15dB to - 15dB centre detent = 0dB
	Maximum Fader attenuation	> 80dB		
Output Impedance	All Line Outputs	50Ω balanced source to drive > 600Ω	Bass Shelving Freq	continuously variable - 3dB point from 20Hz to 400Hz
	Headphones	To drive > 8Ω	Bass Bell Freq	continuously variable centre from 20Hz to 400Hz
Maximum Output Level	All Line Outputs	+ 21dBu		
	Headphones	+ 21dBu	Bass Bell Bandwidth	continuously variable 0.1Oct. to 2Oct centre detent = 0.5Oct.
Nominal Signal Level	Mic	-60dBu to +10dBu		
	Line	0dBu		
	Headphones	+ 10dBu		

Block Diagrams



H4000 INPUT FADER MODULE BLOCK DIAGRAM

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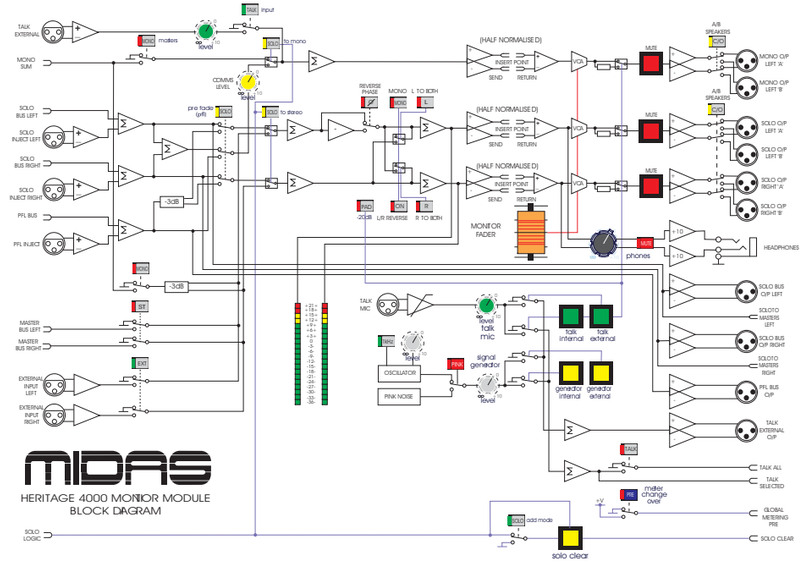
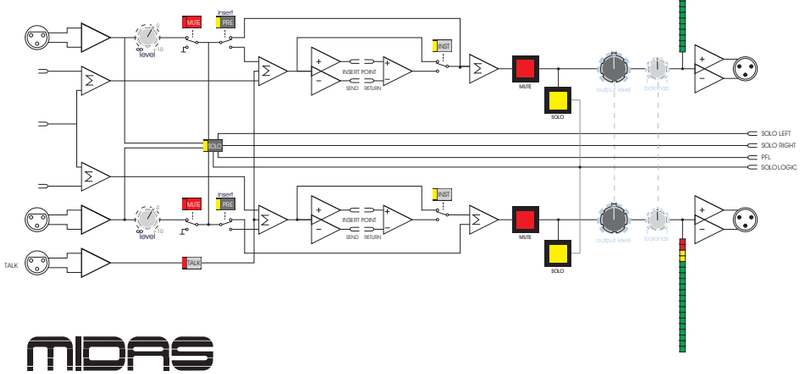
HERITAGE 4000 INPUT MODULE
BLOCK DIAGRAM



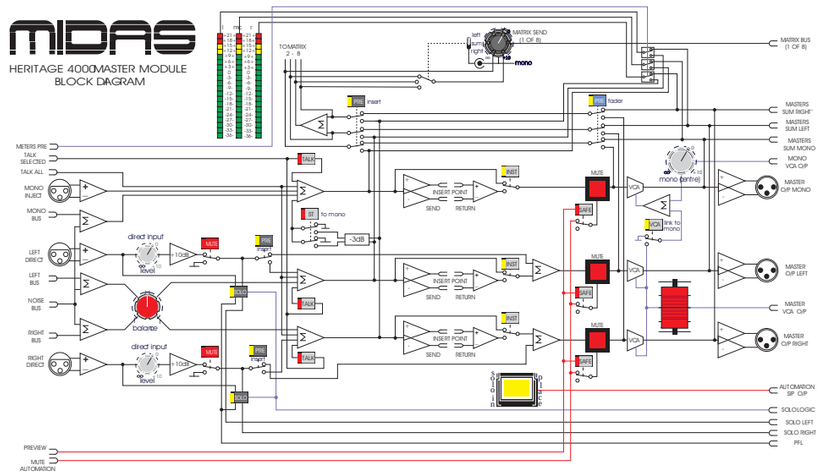
MIDAS

HERITAGE 4000 MONITOR MODULE
BLOCK DIAGRAM



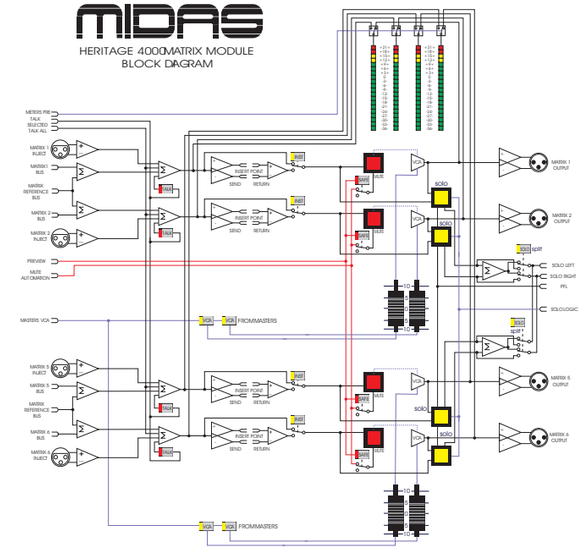
MIDAS

HERITAGE 4000 STEREO AUX
MODULE BLOCK DIAGRAM



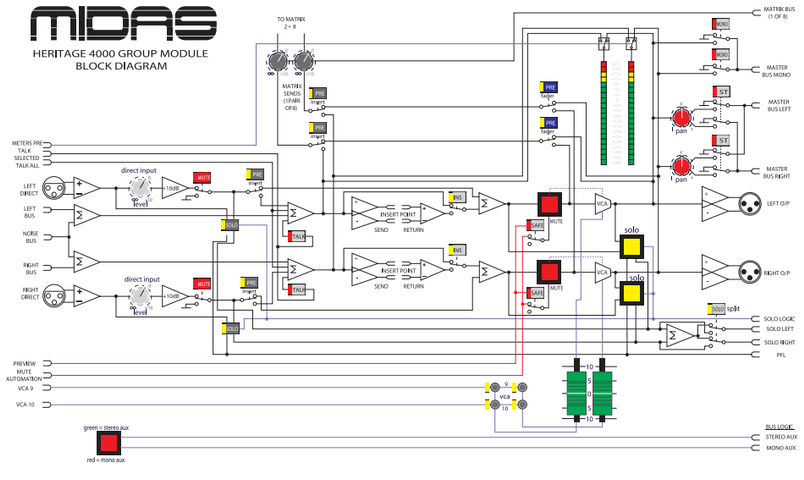
MIDAS

HERITAGE 4000MATRIX MODULE
BLOCK DIAGRAM



MIDAS

HERITAGE 4000 GROUP MODULE
BLOCK DIAGRAM



Heritage 3000

The Heritage 3000 has established itself as the international industry standard in concert sound for Front of House and monitor applications. Defined not only by its striking colour but also by all those things that make it so unmistakably Midas, the Heritage 3000 has proved to be a runaway success from day one.

Firstly, it's flexible - at home in a theatre, an outside broadcast truck, on stage or at front of house, the H3000 offers a unique, easy to use, three position switching system that changes the consoles output functions according to the application.

Secondly it has all of the hallmarks which make it sound so distinctly Midas. They include a new mic amplifier which further improves on the XL4 design giving a CMR improvement of +30dB whilst retaining the XL4's constant HF bandwidth topology, assuring excellent amplifier stability, RF rejection and noise performance at all gains, plus the legendary fully parametric XL4 EQ. This powerful desk is available in frame sizes from 24 to 64 inputs and is as tough as they come. With it's contemporary styling and vast range of features plus the Midas assurance of quality, it is little wonder this desk is the darling of the rental market.

Key Features:

Frames: 16 Extender, 24, 32, 40, 48, 56, and 64
(please note the 16 extender cannot be used with consoles greater than 48 channel)

EQ: 4 band fully-parametric

Direct Output: front panel switchable and level control

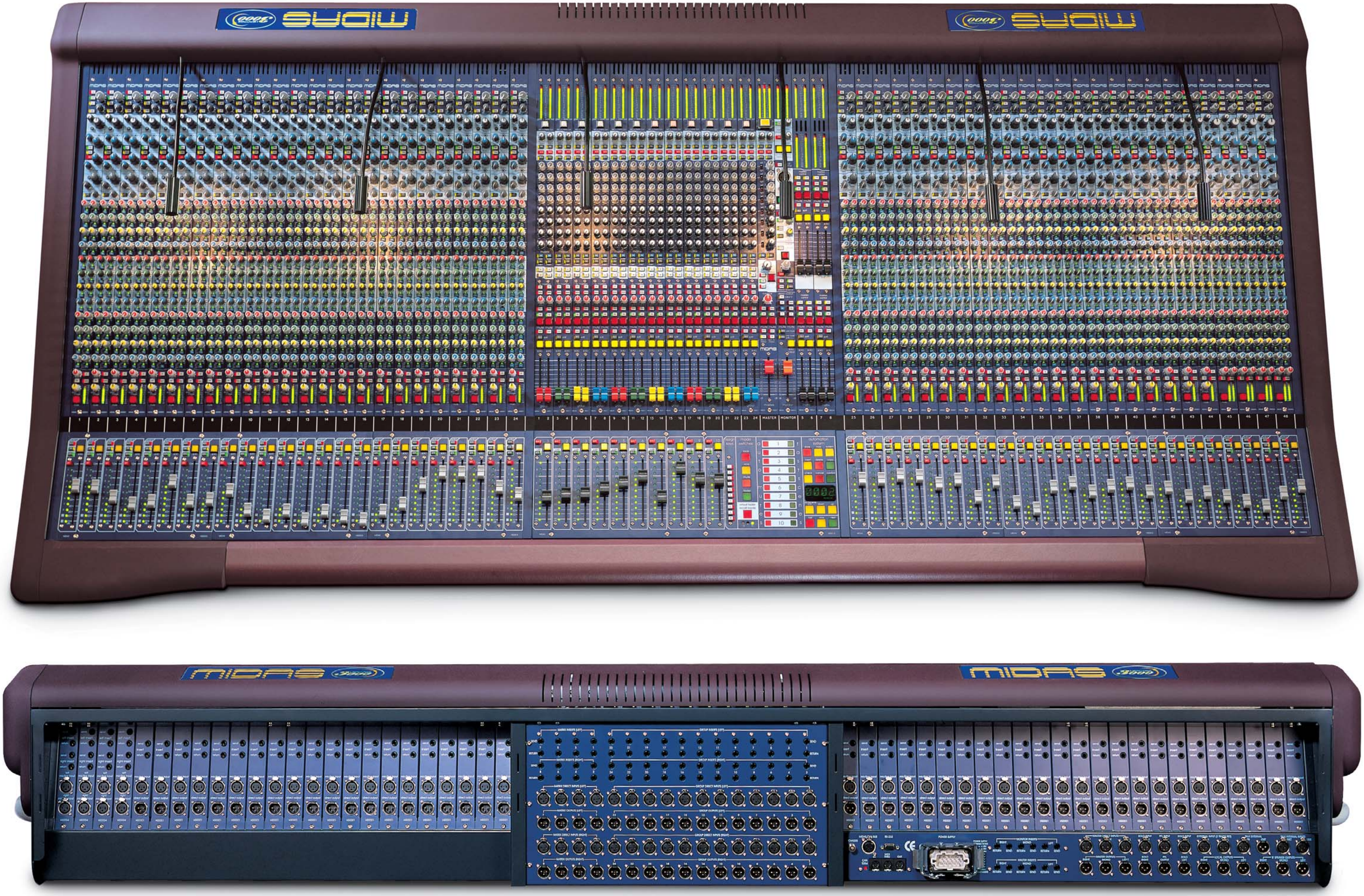
SIS™ panning with IMAGE control

24 Mix Outputs: front panel configurable per application

10 VCAs, 10 Automute groups, 27 x 8 matrix

Automation: snapshot automation of VCA routing, mutes, all channel and VCA levels

STS - compatible



Heritage 3000

Mono Input Module
The Mono Input Module is a fully featured mic/line channel strip incorporating the classic XL4 mic-pre and MIDAS 4-band parametric equaliser with 24 adjustable, dual mode Group Mix controls. The 24 configurable Mix rotaries operate as bus assign on/off switches as well as conventional Aux sends, controlling the signal levels sent to the corresponding Aux buses. These 24 Mix buses may be configured as Mono Aux, Stereo Aux or Post Pan Group, selectable in pairs. In Stereo Aux mode, the lefthand control of each pair functions as a pan control while the righthand control adjusts the Aux level. The channel insert points may be switched pre- or post-EQ.

Each mono channel features the MIDAS SIS™ spacial imaging system for use with Left, Centre Right loudspeaker systems. When SIS™ is active, the Image control modifies the action of the pan control so as to adjust the amount of centre panned signals which are fed equally to both left and right outputs as well as to the centre. This can be particularly useful for distributing the load of high energy, centre-panned sounds across all FOH loudspeaker arrays. A constant power law ensures that the overall balance will not change as the Image control is adjusted.

Stereo Input Module
Like the Mono Input Module, the stereo is a comprehensive, mic/line channel strip incorporating the classic MIDAS 4-band equaliser and 24 adjustable, dual mode Group Mix controls that operate as bus assign on/off switches and Aux sends. The input gain and EQ control settings apply to both the left and right signal paths. The Aux modes are similar to those provided on the mono channel, though when configured to mono, the signal is derived from a sum of the left and right channels. Like the mono version, the channel insert points may be switched pre or post EQ. Bargraph metering indicates the pre-fader peak input levels while a Mono button connects the post-fader channel signals to the Mono Master fader. Left and right pan controls are used for setting the stereo positioning of the two channels and a Stereo routing button connects the post-fader channel signals to the stereo bus via the pan controls.

Input faders
The Input faders are linked to an intuitive, VCA level automation system, which is mainly controlled from the centre section of the console, though key status buttons and indicators are located adjacent to each fader. Each fader has a Automation Safe button that removes it from automation control as well as a Fader Safe button which removes the fader from any form of remote control. The set switch is used to program the channel automute and VCA assignment when creating subgroups. Status LEDs are used to show the VCA 'virtual' fader level as well as to prompt the operator when nulling the faders. The focus is on fast, intuitive use in a live performance situation.

Group Module
The Group Module provides a highly flexible stereo Group master control strip with one direct input per Group that can be mixed with the existing bus signal. These direct inputs may be employed as extra effects returns or for console bus linking. Eight matrix level controls are provided per channel and 'per channel' pre/post switching is provided to determine whether the Group's matrix outputs are derived pre or post the Group fader. VCA switches are fitted to assign the audio subgroups to VCA control via VCA masters 9 and 10.

Clear level metering monitors the signal levels from -36dB to +21dB. The Group insert point may be switched so that the signal sent to the matrix mixes is either pre or post the insert point. A large, illuminated mute button may be used for manual channel muting or may be controlled from the Automute snapshot automation system.

Heritage 3000

Masters Module
Full Left / Centre / Right metering is provided as part of the Masters Module along with a large Solo-in-Place switch. Direct inputs may be summed into the left and right buses for console linking, or other applications, and these may be switched pre or post the master insert point. Each of the eight Matrix Master controls has Left/Right/Sum source switching and the matrix feeds may be switched pre or post the Master fader. This module also includes the talkback controls, overall control of the master stereo balance and single fader control over the stereo mix level. The master mute buttons are integrated into the snapshot automation system and there's a VCA link to allow the mono output level to track that of the stereo master fader.

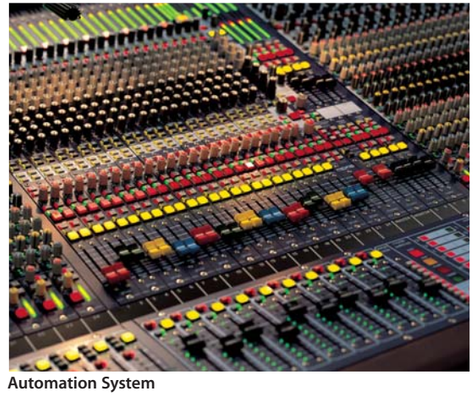
Monitor Module
The Monitor Module includes peak metering of the left and right monitor signals, a variable frequency test oscillator with a 1kHz fixed tone switch, pink noise generation and a talkback mic input. The talkback mic may be routed to an external XLR or to the console's internal talk system, in which case local outputs are dimmed by 20dB. The signal generator section may be routed to the console's internal Talk to All and Talk Select busses and/or to an external XLR connector. The Talk to All switch takes priority over other output talk switches so that the signal generator section or mic can be routed to all outputs.

A headphone monitoring section is also fitted along with phase reverse, left/right reverse switching mute and solo buttons for the monitor output. A single fader provides overall control over all three local monitor outputs and a switchable Solo Add mode allows multiple channels to access to the Solo bus.

Matrix Module
Each Matrix Module provides full fader control and level metering for four matrix outputs. Matrix outputs may be individually assigned to VCA control from the master fader and Talk buttons may be used to include the matrix outputs in the talkback system. Safe buttons remove the matrix output from snapshot automation control and Solo switches send the matrix signals to the PFL mono and AFL buses.

VCA Master Faders
The VCA Master Faders are equipped with Solo and Mute buttons, plus an Auto Safe switch that disables snapshot automation control of both the VCA master faders and VCA mutes. If the Solo button is pressed momentarily, it will latch on whereas if it is pressed and held for more than one second, the latching is disabled. The same status LED system is employed as on the channel faders to show the VCA 'virtual' fader settings and to assist the user in nulling the faders when necessary. The status LEDs turn off when the console is in VCA or mute assignment modes.

Virtual Fader Recall mode generates a VCA fader level based on the value at the time the last snapshot was stored. This level is added to the physical fader level (effectively a 'relative' mode) and the virtual fader level is displayed as a vertical bar of status LEDs.



Automation System
The Heritage 3000 includes a highly sophisticated yet intuitive Mute and VCA automation system designed specifically for live performance. Numerical readouts of Act and Scene numbers is provided and there's direct Fast Key access to the ten most commonly used snapshots as set up by the user. Snapshots may be stored as either acts or scenes where scenes are organised as sub-sets of acts. Scene recall may be achieved by stepping through the stored scenes in numerical order using the Last/Next buttons, by using the Act/Scene Up/Down buttons or by direct recall using a Fast Key. Alternatively, scenes may be recalled directly via MIDI. A check mode is provided so that virtual fader positions for a newly recalled scene can be viewed before making that scene active.

The automation data is read from two micro cards. A switch is used to select whether card A or B is active. Potential fault situations are also monitored by the status LEDs. Comprehensive automation and MIDI editing is provided, though this may be disabled during performance if required for security reasons.

The fader automation operates in either Real Fader mode or Virtual Fader mode. In Real Fader mode the signal levels are controlled by the physical faders, while in Virtual mode they are controlled by the VCA automation system. In virtual mode, the 11 status LEDs adjacent to the faders show the VCA gain setting regardless of the physical fader position.

In Real Fader mode, the automation system can still provide visual prompts via the status LEDs. Comprehensive editing facilities are provided, including the ability to edit, insert or copy scenes.

Heritage 3000 Overview and Statistics

Console Statistics

The Heritage 3000 is a 30 buss console with an additional 27 x 8 output matrix. The busses are:
24 stereo or mono configurable groups = 24
1 stereo master = 2
1 mono master = 1
1 stereo AFL = 2
1 mono PFL = 1
TOTAL = 30

10 automute sub groups and 10 VCA sub groups which include VCA sub group muting.

52 input channels plus an additional 26 direct inputs on the group and master modules.

A total XLR input count of 95 are:
52 channel mic inputs
24 group direct inputs
8 matrix bus inject inputs
3 solo bus inject inputs
2 master direct inputs
2 external inputs (2 track return)
1 master bus inject
1 talk mic input
1 talk external input
1 test bus input

A total XLR output count of 89 are:
44 input channel direct outputs
24 audio group outputs
8 matrix outputs
3 master outputs
3 solo outputs
6 local outputs
1 talk external output

A total of 180 balanced 1/4 inch jacks for inserts are:
52 input channel insert sends
52 input channel insert returns
24 audio group insert sends
24 audio group insert returns
8 matrix insert sends
8 matrix insert returns
3 master insert sends
3 master insert returns
3 local insert returns

58 long throw faders for mix control with fader position recall and virtual fader functions.

1043 automated switch functions are:
480 input channel VCA sub group virtual assign switches
480 input channel mute sub group virtual assign switches
48 input channel mute switches
24 audio sub group mute switches
8 matrix mute switches
3 master mute switches

A total of 89 peak program meters with 20 LED segments on all outputs and 11 LED segments on input channels.

Weights and Dimensions

24 channel - 20 mono/4 stereo
Dim A = 1484mm/58.42" Dim B = 1441mm/56.73"
140kg /308.6lbs

32 channel - 28 mono/4 stereo
Dim A = 1756mm/69.13" Dim B = 1713mm/67.44"
165kg /363.8lbs

40 channel - 36 mono/4 stereo
Dim A = 2012mm/79.21" Dim B = 1969mm/77.52"
188kg /414.5lbs

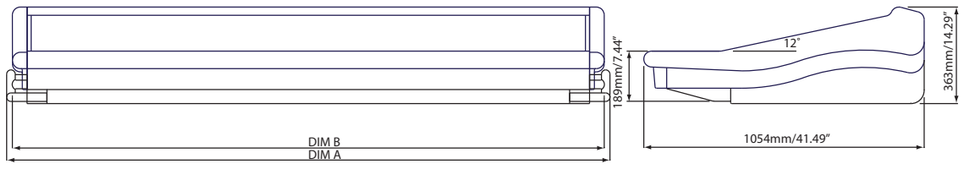
48 channel - 44 mono/4 stereo
Dim A = 2268mm/89.29" Dim B = 2225mm/87.59"
215kg /473.9lbs

48 channel - 44 mono/4 stereo (Bob Tail Frame)
Dim A = 2138mm/84.17" Dim B = N/A
205kg /451.94lbs

56 channel - 52 mono/4 stereo
Dim A = 2559mm/100.74" Dim B = 2516mm/99.05"
253kg /564.4lbs

64 channel - 60 mono/4 stereo
Dim A = 2815mm/110.82" Dim B = 2772mm/109.13"
260kg /573.2lbs

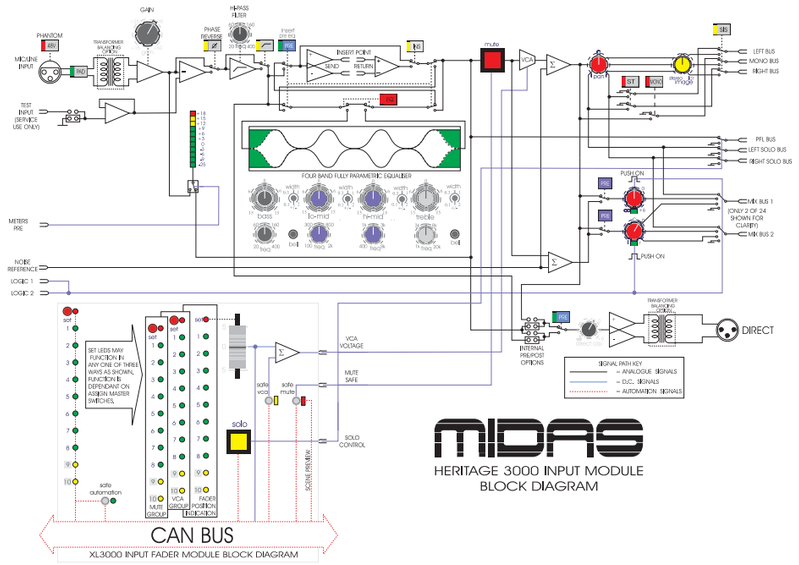
Weights are approximate and out of flight case



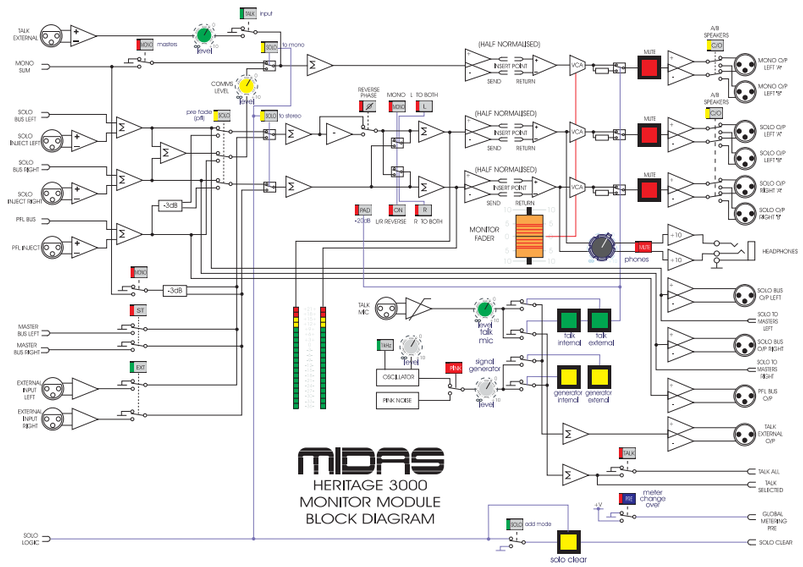
Heritage 3000 Specifications

Input Impedance	Mic	2k Balanced	**Equaliser**	
	Line	20k Balanced	Hi pass slope	12dB / Oct
Input Gain	Mic	continuously variable from + 15dB to + 60dB	Hi pass frequency	continuously variable - 3dB point
	Mic + Pad	continuously variable from -0dB to + 35dB	Treble Gain	continuously variable + 15dB to -15dB centre detent = 0dB
	Line Level Inputs	0dB	Treble Shelving Freq	continuously variable - 3dB point from 1k to 20k
Maximum Input Level	Mic	+ 6dBu		
	Mic + Pad	+ 31dBu		
	Line Level Inputs	+ 21dBu	Treble Bell Freq	continuously variable centre from 1k to 20k
CMR at 100kHz	Mic (gain + 40dB)	Typ 115dB		
	Mic + Pad (gain 0dB)	Typ 80dB	Treble Bell Bandwidth	continuously variable 0.1Oct. to 2Oct. centre detent = 0.5Oct.
CMR at 1kHz	Mic (gain + 40dB)	>100dB		
	Mic + Pad (gain 0dB)	>60dB		
	Line	>50dB	Hi Mid Gain	continuously variable + 15dB to -15dB centre detent = 0dB
Frequency Response (20 to 20kHz)	Mic to Mix (gain + 60dB)	+ 0dB to - 1dB	Hi Mid Freq	continuously variable centre from 400Hz to 8k
Noise (20 to 20kHz)	Mic EIN ref.150 Ω (gain + 60dB)	-128dBu	Hi Mid Bandwidth	continuously variable 0.1Oct. to 2Oct. centre detent = 0.5Oct.
System Noise (20 to 20kHz)	Summing Noise (48 channels routed with faders down)	- 80dB	Lo Mid Gain	continuously variable +15dB to -15dB centre detent = 0dB
	Line to Mix Noise (48 channels routed at 0dB, pan centre)	-75dB	Lo Mid Freq	continuously variable centre from 100Hz to 2k
Distortion at 1kHz	Mic to Mix (+ 60dB gain, 0dBu output)	<0.03%	Lo Mid Bandwidth	continuously variable 0.1Oct. to 2Oct centre detent = 0.5Oct.
Crosstalk at 1kHz	Channel to Channel	<-90dB		
	Mix to Mix	<-90dB		
	Channel to Mix	<-90dB	Bass Gain	continuously variable + 15dB to - 15dB centre detent = 0dB
	Maximum Fader attenuation	> 80dB		
Output Impedance	All Line Outputs	50 Ω balanced source to drive > 600Ω	Bass Shelving Freq	continuously variable - 3dB point from 20Hz to 400Hz
	Headphones	To drive > 8Ω	Bass Bell Freq	continuously variable centre from 20Hz to 400Hz
Maximum Output Level	All Line Outputs	+ 21dBu		
	Headphones	+ 21dBu	Bass Bell Bandwidth	continuously variable 0.1Oct. to 2Oct centre detent = 0.5Oct.
Nominal Signal Level	Mic	-60dBu to +10dBu		
	Line	0dBu		
	Headphones	+ 10dBu		

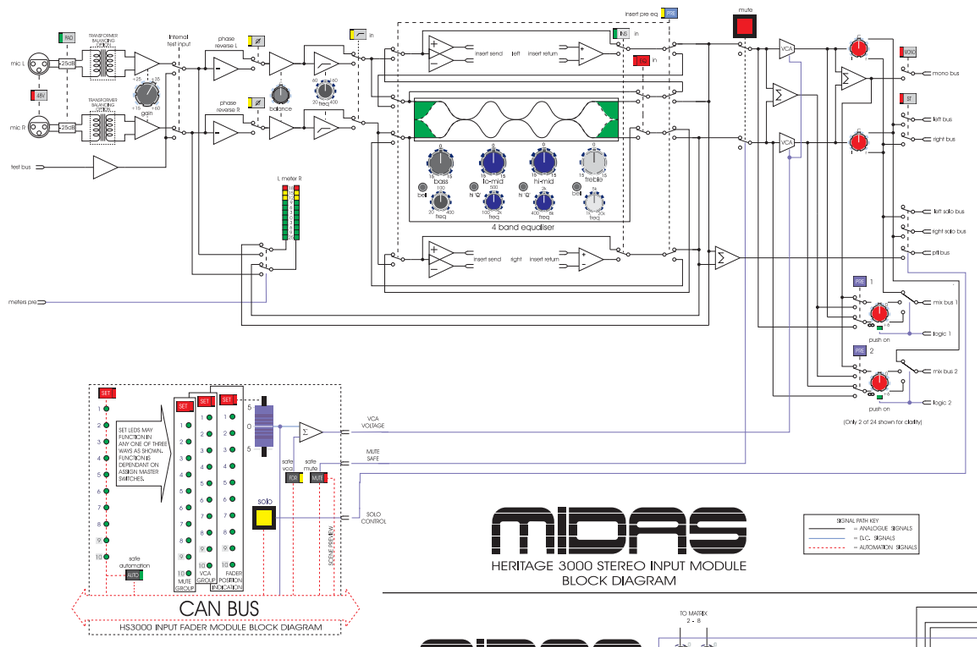
Block Diagrams



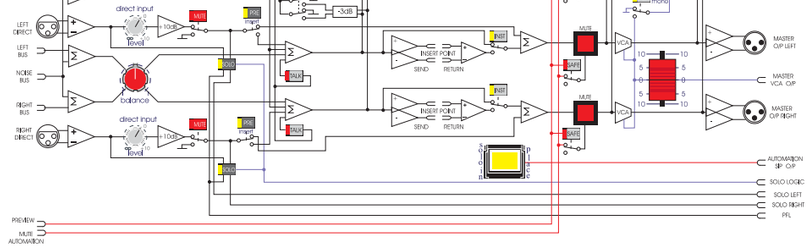
MIDAS
HERITAGE 3000 INPUT MODULE
BLOCK DIAGRAM



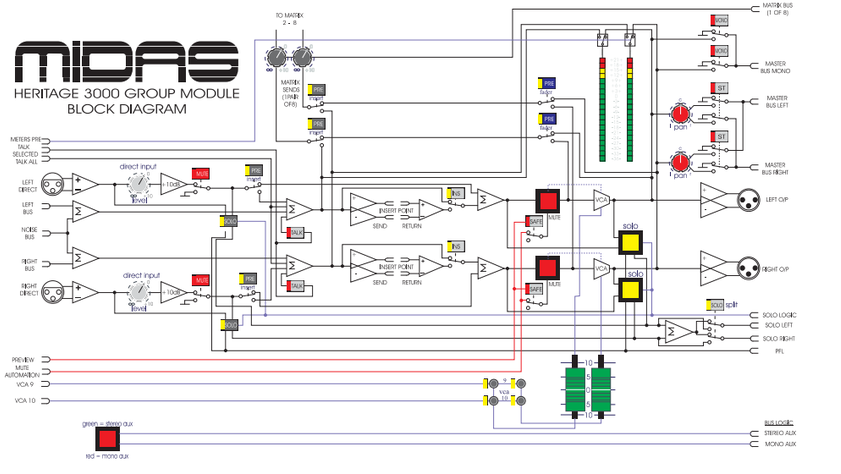
MIDAS
HERITAGE 3000
MONITOR MODULE
BLOCK DIAGRAM



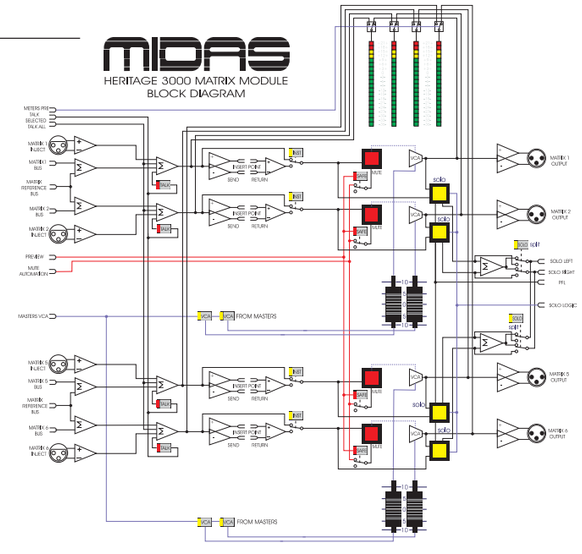
MIDAS
HERITAGE 3000 STEREO INPUT MODULE
BLOCK DIAGRAM



MIDAS
HERITAGE 3000
MASTER MODULE
BLOCK DIAGRAM



MIDAS
HERITAGE 3000 GROUP MODULE
BLOCK DIAGRAM



MIDAS
HERITAGE 3000 MATRIX MODULE
BLOCK DIAGRAM

Heritage 2000

The Heritage 2000 offers all the superb audio performance and automation features of the Heritage 3000 in a package that is entirely dedicated to FOH duties.

It is suitable for a variety of applications from rock and roll to theatre to large-scale conferences and conventions and of course OB vehicles. As with all consoles in the Heritage range, the Heritage 2000 sports the Midas Heritage mic preamp, which is of the highest quality yet produced by Midas, as well as the EQ section. Sophisticated automation via the on-board computer enables the console to memorise all of the input fader positions to be recalled at a later date, and also memorises the mute status of the board.

Another feature shared with the Heritage 3000 is the Stereo Imaging System (SIS™) with true LCR panning and an image width control device that is unique to the Heritage Series.

For applications where large numbers of Aux sends are not required, the Heritage 2000 enables customers to benefit from the technology, legacy and quality of the 3000, with the advantage of a dedicated FOH control surface.

Key Features:

Frames: 16 Extender, 24, 32, 40, 48, 56, and 64
(please note the 16 extender cannot be used with consoles greater than 48 channel)

EQ: 4 band fully-parametric

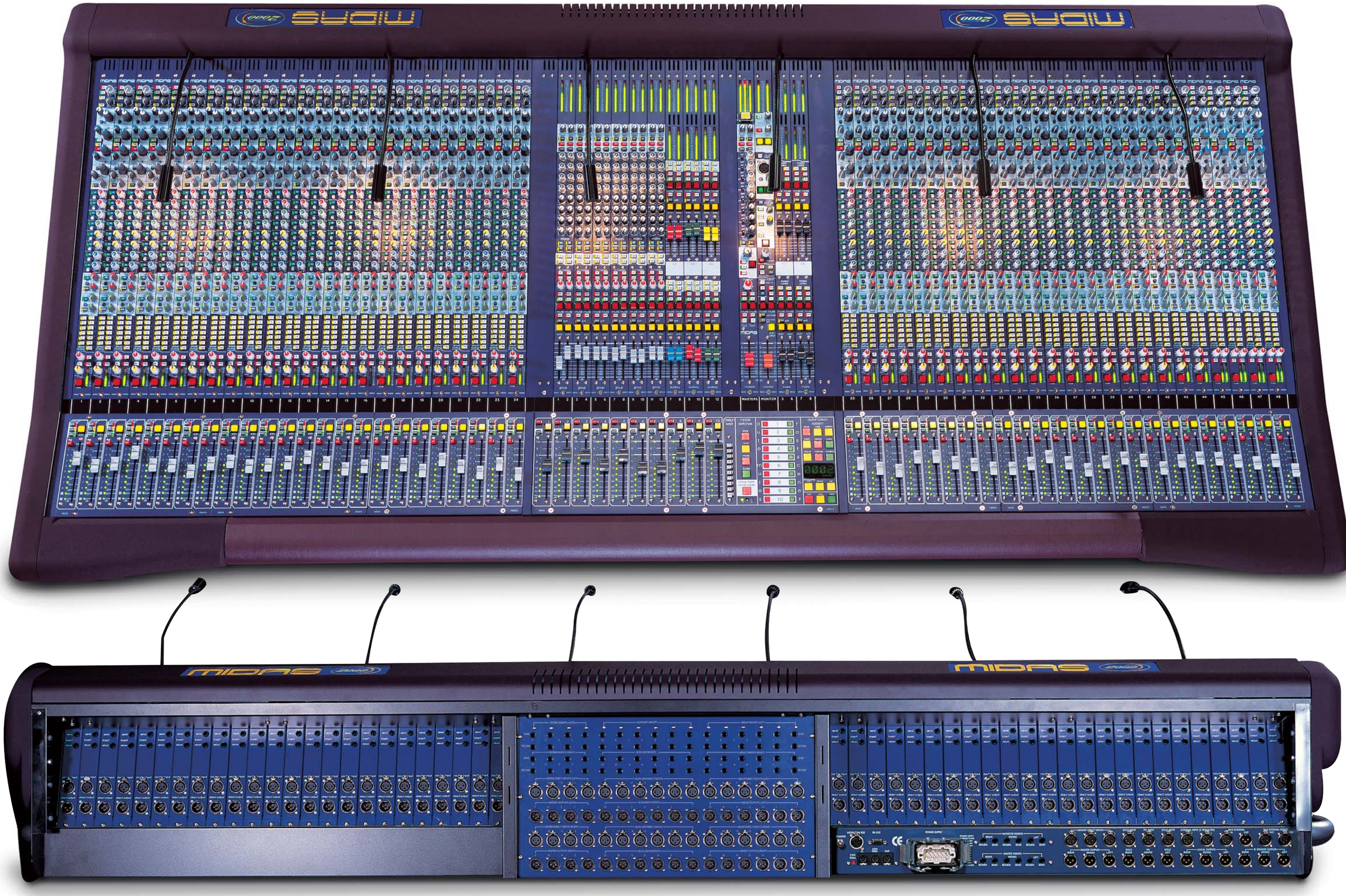
Direct Output: Front panel switchable and level control

SIS™ panning with IMAGE control

12 Aux Sends, 12 Audio Sub Groups, 10 VCAs, 10 automute groups 15 x 8 matrix

Automation: snapshot automation of VCA routing, mutes, all channel and VCA levels

STS - compatible


MASTERS
MONITOR
MIDAS
MIDAS

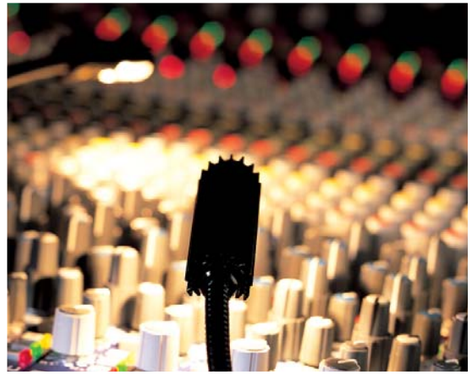
Heritage 2000

Mono Input Module
The Mono Input Module is a fully featured mic/line channel strip incorporating a classic MIDAS 4-band equaliser that features two fully parametric mid sections, variable frequency high and low filters with switchable shelving/bell characteristics and a variable frequency 20 Hz to 400 Hz high-pass filter. Input pad, phase and phantom power switches are fitted.

Eight mono Aux controls may be individually assigned to pre or post-fade operation with two further stereo Aux sends, with level and pan controls, feeding Aux busses 9 - 10 and 11 - 12. A variable gain, direct channel output is available and this may be switched pre or post- equaliser. The channel insert points may also be switched pre- or post-EQ and a switch is provided for linking the insert send to the insert return, effectively bypassing any connected device. Each mono channel features the MIDAS SIS™ spacial imaging system for use with Left, Centre Right loudspeaker systems. When SIS™ is active, the Image control modifies the action of the pan control so as to feed centre panned signals equally to both left and right outputs as well as to the centre. This can be particularly useful for distributing the load of high energy, centre-panned sounds across all FOH loudspeaker arrays. A constant power law ensures that the overall balance will not change as the Image control is adjusted.

Group routing for 12 busses is provided along with a Pan switch that affects all group routing by moving the channel source from post-fader to post- both the fader and the Pan control. Pre-fade metering is provided close to the fader and a Mono switch allows the post-fader channel signal to be routed to the mono master buss. A large, illuminated mute button may be used for manual channel muting or may be controlled from the Automute snapshot automation system.

Stereo Input Module
Like the Mono Input Module, the stereo is a comprehensive, mic/line channel strip and incorporates the classic MIDAS 4-band equaliser. There are eight mono Aux sends and two stereo Aux sends, all individually switchable pre or post-fader. The Aux and insert modes are similar to those provided on the mono channel where the stereo sends may be switched to mono, in which case the signal is derived from a sum of the left and right channels. Like the mono version, the channel insert points may be switched pre or post EQ. The input sources are regulated using a gain and a balance control with a separate phase switch for each channel. Bargraph metering indicates the pre-fader peak input levels for both channels while a Mono button connects the post-fader channel signals to the Mono Master buss. Left and right pan controls are used for setting the stereo positioning of the two channels and a Stereo routing button connects the post-fader channel signals to the stereo bus via the pan controls. Routing is identical to the mono module. A large, illuminated mute button may be used for manual channel muting or may be controlled from the Automute snapshot automation system.



Input Fader
The Input faders are linked to an intuitive, VCA level automation system, which is mainly controlled from the centre section of the console, though key status buttons and indicators are located adjacent to each fader. Each fader has a Automation Safe button that removes it from automation control as well as a Fader Safe button which removes the fader from any form of remote control. The set switch is used to program the channel automute and VCA assignment when creating subgroups. Status LEDs are used to show the VCA 'virtual' fader level as well as to prompt the operator when nulling the faders. The focus is on fast, intuitive use in a live performance situation.

Group Module
The Group Module provides a highly flexible stereo Group master control strip with one direct input per Group that can be mixed with the existing bus signal. These direct inputs may be employed as extra effects returns or for console bus linking. Eight matrix level controls are provided per channel and 'per channel' pre/post switching is provided to determine whether the Group's matrix outputs are derived pre or post the Group fader. VCA switches are fitted to assign the audio subgroups to VCA control via VCA masters 9 and 10.

Clear level metering monitors the signal levels from -36dB to +21dB. The Group insert point may be switched so that the signal sent to the matrix mixes is either pre or post the insert point. A large, illuminated mute button may be used for manual channel muting or may be controlled from the Automute snapshot automation system.

Heritage 2000

Masters Module
Full Left / Centre / Right metering is provided as part of the Masters Module along with a large Solo-in-Place switch. Direct inputs may be summed into the left and right buses for console linking, or other applications, and these may be switched pre or post the master insert point. Each of the eight Matrix Master controls has Left/Right/Sum source switching and the matrix feeds may be switched pre or post the Master fader. This module also includes the talkback controls, overall control of the master stereo balance and single fader control over the stereo mix level. The master mute buttons are integrated into the snapshot automation system and there's a VCA link to allow the mono output level to track that of the stereo master fader.

Aux Module
Each module provides four Aux output master control sections complete with post-fade level metering. VCA switches assign the Aux output to VCA control from VCA master 9 and 10 while a Safe switch may be used to remove the Aux from the snapshot automation system. Solo (PFL mono/AFL stereo) and mute buttons are provided for each send and the mutes may be controlled via the snapshot automation system. As a safety feature, the Solo buttons are self-cancelling whenever a new channel is solo'd - multiple channels can be solo'd using the Solo Add Mode switch on the Monitor module. A Split button changes the Aux AFL solos from mono to stereo.

Monitor Module
The Monitor Module includes peak metering of the left and right monitor signals, a variable frequency test oscillator with a 1kHz fixed tone switch, pink noise generation and a talkback mic input. The talkback mic may be routed to an external XLR or to the console's internal talk system, in which case local outputs are dimmed by 20dB. The signal generator section may be routed to the console's internal Talk to All and Talk Select busses and/or to an external XLR connector. The Talk to All switch takes priority over other output talk switches so that the signal generator section or mic can be routed to all outputs.

A headphone monitoring section is also fitted along with phase reverse, left/right reverse switching mute and solo buttons for the monitor output. A single fader provides overall control over all three local monitor outputs and a switchable Solo Add mode allows multiple channels to access to the Solo bus.

Matrix Module
Each Matrix Module provides full fader control and level metering for four matrix outputs. Matrix outputs may be individually assigned to VCA control from the master fader and Talk buttons may be used to include the matrix outputs in the talkback system. Safe buttons remove the matrix output from snapshot automation control and Solo switches send the matrix signals to the PFL mono and AFL buses.

VCA Master Fader
The Heritage 2000 includes a highly sophisticated yet intuitive VCA automation system designed specifically for live performance. Numerical readouts of Act and Scene numbers are provided and there's direct Fast Key access to the ten most commonly used snapshots as set up by the user. Snapshots may be stored as either acts or scenes where scenes are organised as sub-sets of acts. Scene recall may be achieved by stepping through the stored scenes in numerical order using the Last/Next buttons, by using the Act/Scene Up/Down buttons or by direct recall using a Fast Key. Alternatively, scenes may be recalled directly via MIDI. A check mode is provided so that virtual fader positions for a newly recalled scene can be viewed before making that scene active.

Automation
The automation data is read from a micro card (up to two may be installed at any one time) and status LEDs show whether the automation is active or inactive. Where two cards are installed, a switch is used to select whether card A or B is active. Potential fault situations are also monitored by the status LEDs. Comprehensive automation and MIDI editing is provided, though this may be disabled during performance if required for security reasons.

The fader automation operates in either Real Fader mode or Virtual Fader mode. In Real Fader mode, the signal levels are controlled by the physical faders while in Virtual mode, they are controlled by the VCA automation system. In virtual mode, the 11 meter LEDs adjacent to the faders show the VCA gain setting regardless of the physical fader position.

In Real Fader mode, the automation system can still provide visual prompts via the status LEDs. Comprehensive editing facilities are provided, including the ability to edit, insert or copy scenes.

Heritage 2000 Overview and Statistics

Console Statistics

The Heritage 2000 is a 30 buss console with an additional 15 x 8 output matrix. The busses are:
12 audio groups = 24
8 mono Aux = 8
2 stereo Aux = 4
1 stereo master = 2
1 mono master = 1
1 stereo AFL = 2
1 mono PFL = 1
TOTAL = 30

10 automute sub groups and 10 VCA sub groups which include VCA sub group muting.

52 input channels plus an additional 14 direct inputs on the group and master modules.

A total XLR input count of 95 are:
52 channel mic inputs
12 group direct inputs
12 Aux bus injects
8 matrix bus inject inputs
3 solo bus inject inputs
2 master direct inputs
2 external inputs (2 track return)
1 master bus inject
1 talk mic input
1 talk external input
1 test bus input

A total XLR output count of 89 are:
44 input channel direct outputs
12 audio group outputs
12 Aux outputs
8 matrix outputs
3 master outputs
3 solo outputs
6 local outputs
1 talk external output

A total of 180 balanced 1/4 inch jacks for inserts are:
52 input channel insert sends
52 input channel insert returns
12 audio group insert sends
12 audio group insert returns
12 Aux insert sends
12 Aux insert returns
8 matrix insert sends
8 matrix insert returns
3 master insert sends
3 master insert returns
3 local insert sends
3 local insert returns

58 long throw faders for mix control with fader position recall and virtual fader functions.

1043 automated switch functions are:
480 input channel VCA sub group virtual assign switches
480 input channel mute sub group virtual assign switches
48 input channel mute switches
12 audio sub group mute switches
12 Aux mute switches
8 matrix mute switches
3 master mute switches

A total of 89 peak program meters with 20 LED segments on all outputs and 11 LED segments on input channels.

Weights and Dimensions

24 channel - 20 mono/4 stereo
Dim A = 1484mm/58.42" Dim B = 1441mm/56.73"
133kg /293.2lbs

32 channel - 28 mono/4 stereo
Dim A = 1756mm/69.13" Dim B = 1713mm/67.44"
155kg /341.7lbs

40 channel - 36 mono/4 stereo
Dim A = 2012mm/79.21" Dim B = 1969mm/77.52"
173kg /381.4lbs

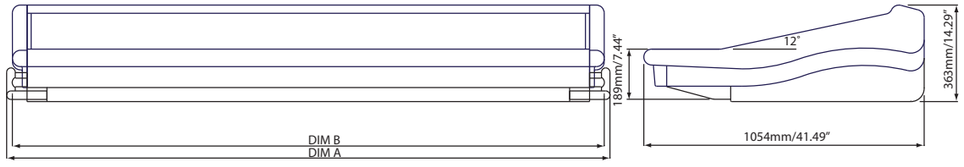
48 channel - 44 mono/4 stereo
Dim A = 2268mm/89.29" Dim B = 2225mm/87.59"
200kg /440.9lbs

48 channel - 44 mono/4 stereo (Bob Tail Frame)
Dim A = 2138mm/84.17" Dim B = N/A
190kg /418.9lbs

56 channel - 52 mono/4 stereo
Dim A = 2559mm/100.74" Dim B = 2516mm/99.05"
231kg /509.3lbs

64 channel - 60 mono/4 stereo
Dim A = 2815mm/110.82" Dim B = 2772mm/109.13"
245kg /540lbs

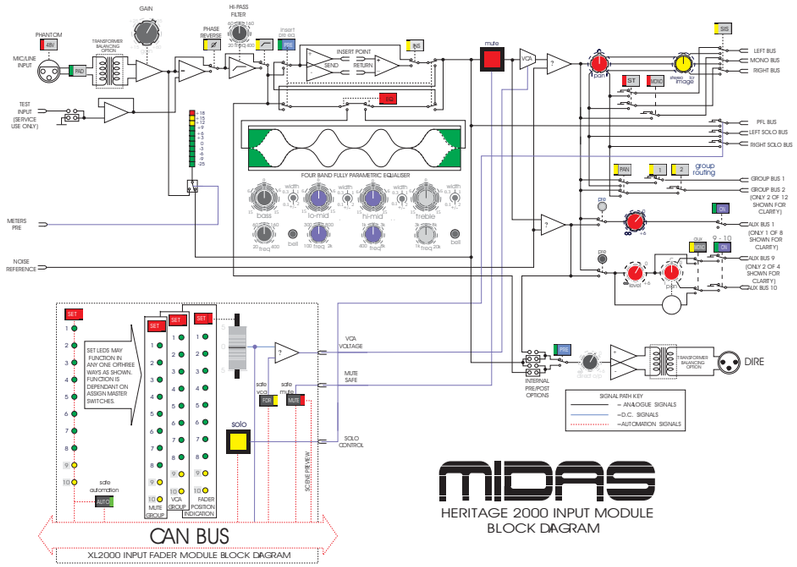
Weights are approximate and out of flight case



Heritage 2000 Specifications

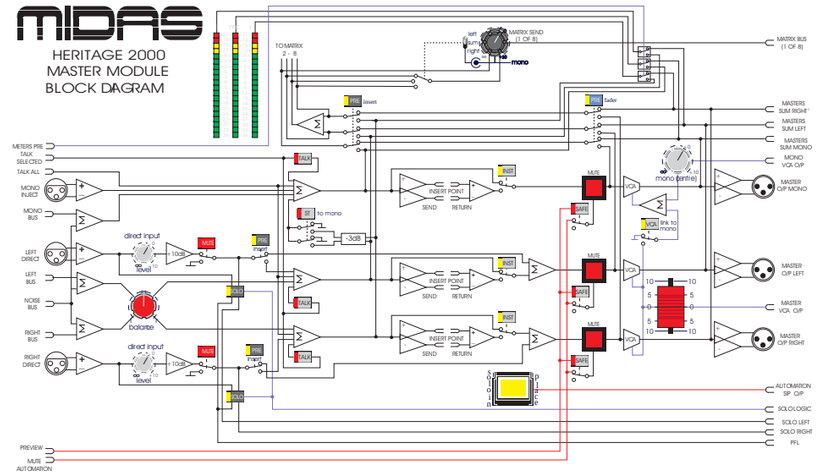
Input Impedance	Mic	2k Balanced	**Equaliser**	
	Line	20k Balanced	Hi pass slope	12dB / Oct
Input Gain	Mic	continuously variable from + 15dB to + 60dB	Hi pass frequency	continuously variable - 3dB point
	Mic + Pad	continuously variable from -0dB to + 35dB	Treble Gain	continuously variable + 15dB to -15dB centre detent = 0dB
	Line Level Inputs	0dB	Treble Shelving Freq	continuously variable - 3dB point from 1k to 20k
Maximum Input Level	Mic	+ 6dBu		
	Mic + Pad	+ 31dBu		
	Line Level Inputs	+ 21dBu	Treble Bell Freq	continuously variable centre from 1k to 20k
CMR at 100kHz	Mic (gain + 40dB)	Typ 115dB		
	Mic + Pad (gain 0dB)	Typ 80dB	Treble Bell Bandwidth	continuously variable 0.1Oct. to 2Oct. centre detent = 0.5Oct.
CMR at 1kHz	Mic (gain + 40dB)	>100dB		
	Mic + Pad (gain 0dB)	>60dB		
	Line	>50dB	Hi Mid Gain	continuously variable + 15dB to -15dB centre detent = 0dB
Frequency Response (20 to 20kHz)	Mic to Mix (gain + 60dB)	+ 0dB to - 1dB		
			Hi Mid Freq	continuously variable centre from 400Hz to 8k
Noise (20 to 20kHz)	Mic EIN ref.150 Ω (gain + 60dB)	-128dBu		
			Hi Mid Bandwidth	continuously variable 0.1Oct. to 2Oct. centre detent = 0.5Oct.
System Noise (20 to 20kHz)	Summing Noise (48 channels routed with faders down)	- 80dB		
	Line to Mix Noise (48 channels routed at 0dB, pan centre)	-75dB	Lo Mid Gain	continuously variable +15dB to -15dB centre detent = 0dB
			Lo Mid Freq	continuously variable centre from 100Hz to 2k
Distortion at 1kHz	Mic to Mix (+ 60dB gain, 0dBu output)	<0.03%	Lo Mid Bandwidth	continuously variable 0.1Oct. to 2Oct centre detent = 0.5Oct.
Crosstalk at 1kHz	Channel to Channel	<-90dB		
	Mix to Mix	<-90dB		
	Channel to Mix	<-90dB	Bass Gain	continuously variable + 15dB to - 15dB centre detent = 0dB
	Maximum Fader attenuation	> 80dB		
Output Impedance	All Line Outputs	50 Ω balanced source to drive > 600W	Bass Shelving Freq	continuously variable - 3dB point from 20Hz to 400Hz
	Headphones	To drive > 8W	Bass Bell Freq	continuously variable centre from 20Hz to 400Hz
Maximum Output Level	All Line Outputs	+ 21dBu		
	Headphones	+ 21dBu	Bass Bell Bandwidth	continuously variable 0.1Oct. to 2Oct centre detent = 0.5Oct.
Nominal Signal Level	Mic	-60dBu to +10dBu		
	Line	0dBu		
	Headphones	+ 10dBu		

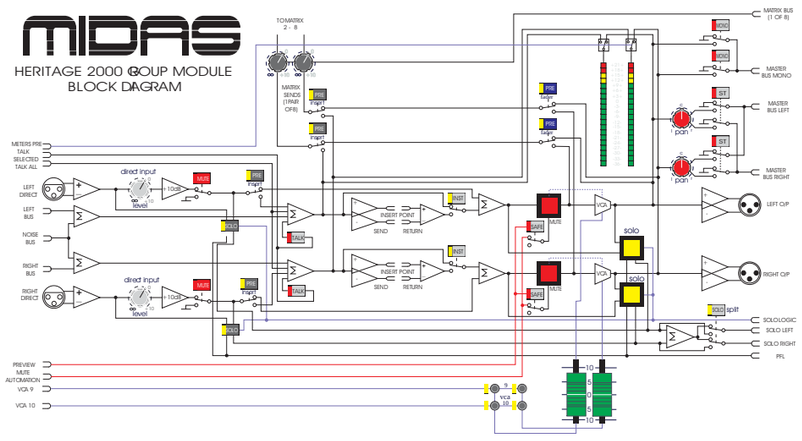
Block Diagrams

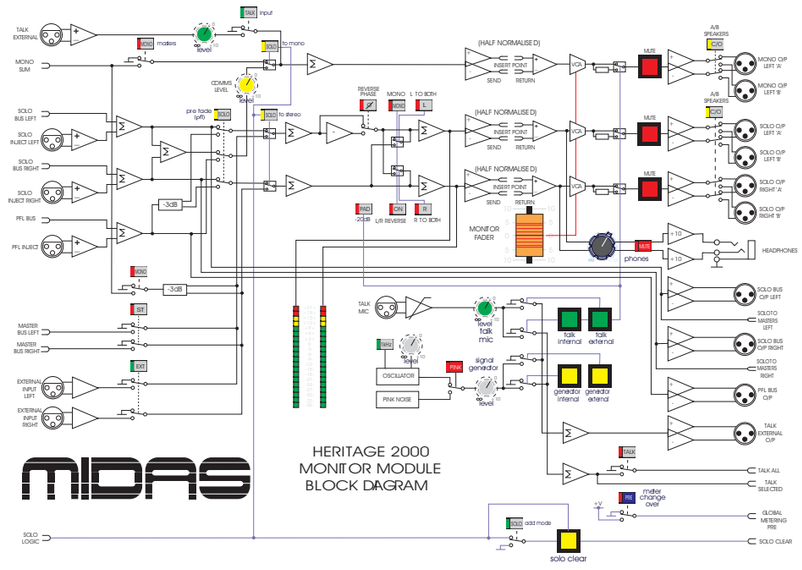


MIDAS

HERITAGE 2000 INPUT MODULE
BLOCK DIAGRAM

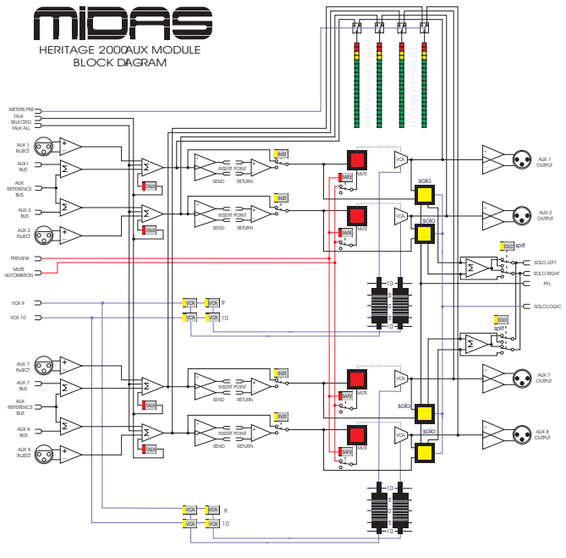


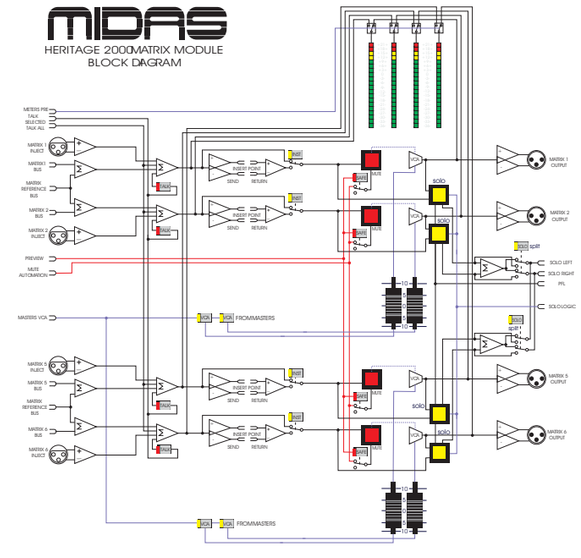




MIDAS

HERITAGE 2000 MONITOR MODULE
BLOCK DIAGRAM





Heritage 3000/2000 Extender

The Heritage 4000, 3000 and 2000 can be expanded up to a maximum of 64 channels by use of a 16 channel extender. The extender can be loaded with mono or stereo channels as required and once connected, it acts seamlessly with the main console.

Audio bussing cables are supplied with the package as is the CAN buss cable which provides communication of scene automation, VCA and solo logic between the console and extender.

Further more an extra power supply is supplied and when connected to the standard package, PSU redundancy is maintained.

Heritage 16 Channel User Specified Extender
1054mm x 657mm 44.49" x 25.88" 64kg/141.1lbs

* picture show Heritage 3000 extender

Heritage 1000

The Heritage 1000 offers the unmistakable sound and legendary quality of the Midas brand in a lightweight, compact fully modular frame.

It's sophisticated automation system (more automated functions than either of it's larger siblings) make the H1000 suitable for a wide variety of applications, but mostly relevant to Theatre, where the combination of powerful automation in a compact package are most attractive.

The H1000's fully modular, configurable matrix is another key feature in the Theatre and Audio-Visual markets. The console can be configured with matrices up to 13x32 or 25x16 to suit the largest zoning requirements.

In addition the hardware, is the Heritage 1000 Library Manager PC software, which allows sound designers and engineers the option of creating numerous snapshot scenes on a PC, prior to the start of shows or rehearsals. This makes the Heritage 1000 the perfect choice for users who need a combination of comprehensive automation, analogue audio quality, and instant access.

For smaller rental companies, the Heritage 1000 is the perfect vehicle for introducing Midas performance and values to a growing business, and for existing Midas customers, to enable them to use their preferred brand of console for smaller events, which require a compact console with powerful automation, or, via the Midas CAN buss automation link, as an extender for the larger Heritage consoles.

Key Features:

Frames: 24, 32, 40, 48, and 56

2 Inputs per channel (A/B)

EQ: 4 band semi-parametric (XL3)

Direct Output

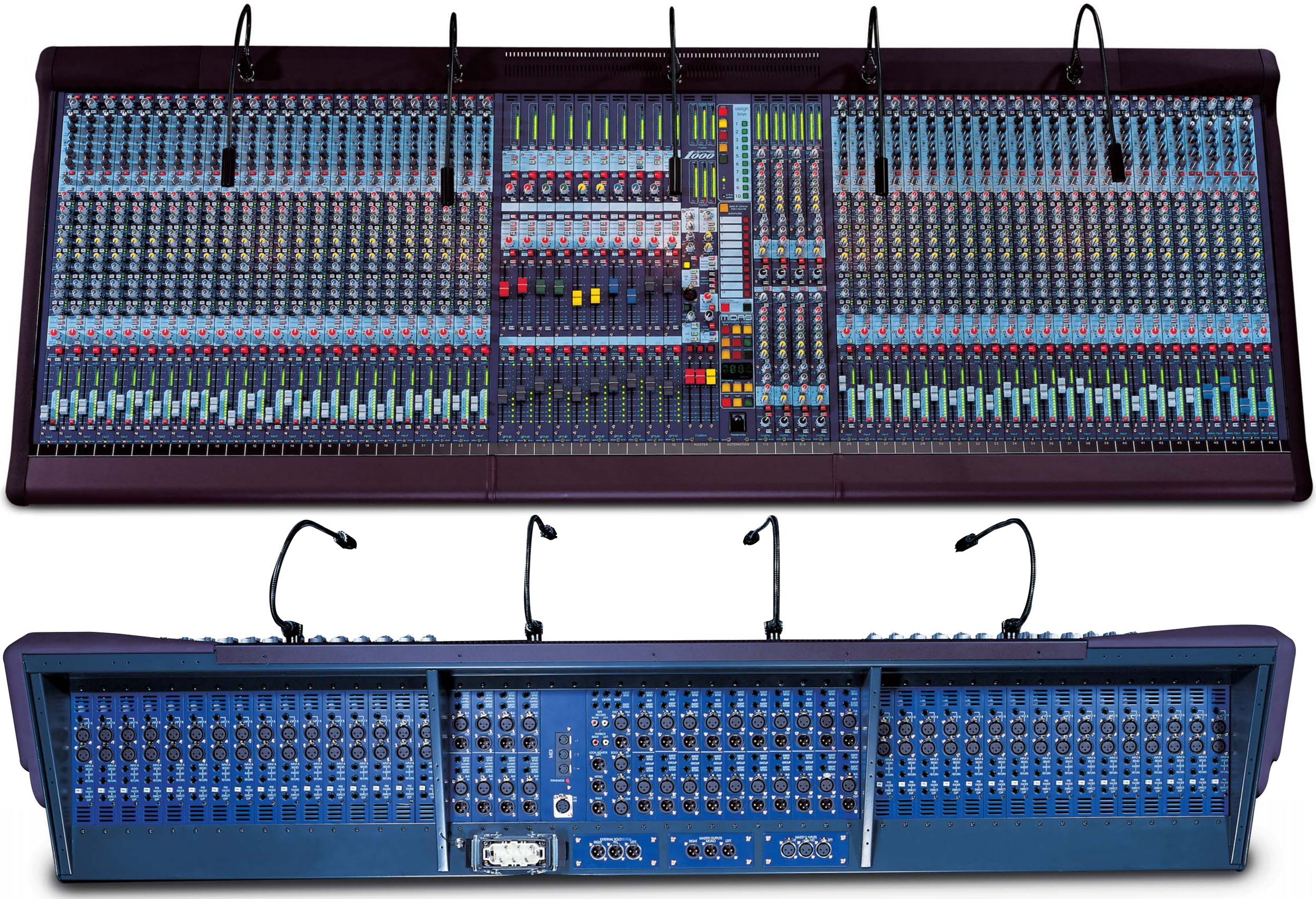
SIS™ panning

10 Aux Sends, 10 Audio Sub Groups, 10 VCAs, 10 automute groups

15 x 8 matrix: outputs can be expanded to suit

Automation: snapshot automation of VCA routing, mutes, all channel and VCA levels

STS - compatible



Heritage 1000

Mono Input Module
The Mono Input Module is a comprehensive mic/line channel strip incorporating the legendary XL4 microphone pre-amp. This works in conjunction with the classic MIDAS 4-band equaliser, featuring two fully parametric mid sections, plus variable frequency high and low shelving filters with adjustable frequency ranges (2kHz to 20kHz and 20Hz to 200Hz respectively). The channel insert point may be switched pre or post the channel equaliser, and a full-time direct output is switchable pre or post fader. Input pad, phase and phantom power switches are fitted along with a secondary 'B' input selectable in the input section. This provides a convenient method of switching in a backup source in critical applications. A further high-pass filter, variable from 20Hz to 400Hz may be switched in before the main equaliser.

Ten mono Aux controls may be individually assigned to pre or post-fade operation and Aux 7 to 10 may be configured as stereo pairs with level and pan control if required. Aux send on/off switching is handled via the console assignment system.
Each mono channel features stereo and mono bus switching as well as the MIDAS SIS™ spacial imaging system for use with Left, Centre Right loudspeaker systems.

Adjacent to the fader are 10 Assign LEDs which show the Aux, VCA and Mute assignments. Assignment is controlled by the central console in conjunction with the local Set button at the bottom of the channel fader.

Pre-fade metering is provided close to the fader and a large, illuminated Mute button may be used for manual channel muting or may be controlled from the snapshot/automute automation system. The Solo button sends the channel signal to the PFL mono and AFL stereo busses. If pressed briefly, this switch will latch, whereas if it is pressed and held for longer than 1 second, it will switch off as soon as released.

All the assignments can be recalled by the automation system. A Safe switch removes the entire channel from automation control. Total isolated can be achieved by using the recessed Automation Disable switch, which also brings up a set of channel default settings. This provides contingency in the event of a local automation failure.

Stereo Input Module
Like the Mono Input Module, the stereo is a comprehensive, mic/line channel strip and incorporates a classic MIDAS 4-band equaliser that features two quasi parametric mid sections (switchable Q; 1.5 or 0.5 octaves) plus variable frequency high and low filters with adjustable frequency ranges (1kHz to 20kHz and 20Hz to 400Hz respectively). Each channel of the equaliser may be bypassed separately. Input pad, phase and phantom power switches are fitted along with separate high-pass filters (pre-insert) for each channel.

Ten mono Aux controls may be individually assigned to pre or post-fade operation; Aux 7 to 10 may be configured as stereo pairs if required. Aux send on/off switching is handled via the console assignment system.

Each stereo channel features stereo and mono bus switching. Adjacent to the fader are 10 Assign LEDs which show the Aux,

VCA and Mute assignments. Assignment is controlled by the central console in conjunction with the local Set button at the bottom of the channel fader. Pre-fade metering is provided close to the fader and a large, illuminated Mute button may be used for manual channel muting or may be controlled from the snapshot/automute automation system. The Solo button sends the channel signal to the PFL mono and AFL stereo busses. If pressed briefly, this switch will latch, whereas if it is pressed and held for longer than 1 second, it will switch off as soon as released. All the assignments can be recalled by the automation system. A Safe switch removes the entire channel from automation control. Total isolation can be achieved by using the recessed Automation Disable switch, which also brings up a set of channel default settings. This provides contingency in the event of a local automation failure.

Group Module
The Group Module provides a highly flexible Group master control strip with one Group master fader, one VCA master fader and an Aux Master level control. A high resolution meter monitors the peak signal level of the post-fader subgroup outputs and an additional Bus Peak LED warns if the pre-insert subgroup bus signals are close to clipping. A Meter to Aux switch enables the meter to be used to monitor the Aux levels in place of the sub-groups signals.

The Aux Master section features Talk and Phase switches while its Mute switch may be operated manually or by means of the automation system. A rotary control sets the Aux output level and both Solo and Safe switches are fitted.

The Group Master fader section incorporates Safe and Solo buttons as well as Pan, Mute and routing to both the master stereo and mono busses. The same SIS™ features are provided as for the main channels. Mute and Safe switches are also provided for the VCA Master Fader. A row of 11 LEDs alongside the fader indicates the current VCA setting. Fader modes are selected from the central controller section.

A Fader Swap switch swaps the group output faders and the Aux master level controls along with their solo and mute switches. This does not affect the inserts or XLR outputs.

Heritage 1000

Stereo Aux Group Module
The Stereo Aux Group Module is the same as the Group module but it has an additional Master Stereo Aux switch which switches the input module Aux sends to stereo level and pan pairs on busses 7/8 and 9/10.

Stereo Input Module
Like the Mono Input Module, the stereo is a comprehensive, mic/line channel strip and incorporates a classic MIDAS 4-band equaliser that features two quasi parametric mid sections (switchable Q; 1.5 or 0.5).

Master Module
The Masters Module provide three sets of Master and three sets of Monitor high resolution meters as well as three Master faders. These may easily be customised to appear as Left, Right Mono, Left Centre Right and so on. Each has a Mute switch, but these are not linked to the snapshot automation system.

Control is provided for the console lamp brightness and there's an external tape feed that may be routed to any combination of the stereo and mono busses. A continuously variable oscillator (50Hz to 5kHz) is fitted in addition to a pink noise generator and the signal generator output may be routed to the console's internal Talk busses as well as the external Talk XLR. Full talkback facilities are fitted via a 150 ohm microphone input socket. A Stereo Solo Trim control is fitted as is Mono routing to send the post-fader mono master mix to the local monitor out.

A SIS™ switch routes solo signals to both stereo and mono local monitor outputs, overriding signals from all other sources. Local monitor and level controls are fitted as is a comprehensive headphone monitor section. The Solo On/Clear switch illuminates when any solo switch is active and clears any active solo switches when pressed.

Matrix Module
Each dual Matrix Module provides post fader level metering plus Talk buttons that may be used to include the matrix outputs in the talkback system. Safe buttons remove the matrix output from snapshot automation control and Solo switches send the matrix signals to the PFL mono and AFL buses.

Matrix sends are provided for mono sends 1 to 6 and the Aux 1-6 To Mtx switch enables matrix inputs 1 to 6 to be sourced from the Aux outputs rather than the group outputs. A similar switching arrangement is provided for Aux 7 to 10. Separate Left/Right and Centre level controls are fitted and the master matrix level control is fitted with both Mute and Safe switches. A link switch feeds the upper matrix into the lower matrix so that the lower matrix carries a mix of both. Up to 16 matrix modules can be fitted providing a 25 by 16 matrix with the link switch assigned on all modules (13 by 32 when unassigned).

Automation Module
The Automation module handles the channel assignment as well as the mute and snapshot automation. Separate VCA, Mute, S-Group and Aux switches determine which assignment mode is operational. These are used in conjunction with the channel Set buttons. Automation is via an intuitive VCA automation system designed specifically for live performance. Numerical readouts of Act and Scene numbers are provided and there's direct Fast Key access to the ten most commonly used snapshots as set up by the user. Snapshots may be stored as either acts or scenes where scenes are organised as sub-sets of acts. Alternatively, scenes may be recalled directly via MIDI. A check mode is provided so that virtual fader positions for a newly recalled scene can be viewed before making that scene active.

The automation data is read from a micro card (up to two may be installed at any one time) and status LEDs show whether the automation is active or inactive. Where two cards are installed, a switch is used to select whether card A or B is active. Comprehensive automation and MIDI editing is provided, though this may be disabled during performance if required for security reasons.

The fader automation operates in either Real Fader mode or Virtual Fader mode. In Real Fader mode, the signal levels are controlled by the physical faders while in Virtual mode, they are controlled by the VCA automation system. In virtual mode, the 11 meter LEDs adjacent to the faders show the VCA gain setting regardless of the physical fader position.

In Real Fader mode, the automation system can still provide visual prompts via the status LEDs. Comprehensive editing facilities are provided, including the ability to edit, insert or copy scenes.

Heritage 1000 Overview and Statistics

Console Statistics

The Heritage 1000 is a 26 buss console with an additional 13 x 8 output matrix. The busses are:
10 audio groups = 10
6 mono Aux = 6
2 stereo Aux = 4
1 stereo master = 2
1 mono master = 1
1 stereo AFL = 2
1 mono PFL = 1
TOTAL = 26

10 automute sub groups and 10 VCA sub groups which include VCA sub group muting.

48 input channels.

A total XLR input count of 134 are:
48 channel mic inputs
48 B channel mic inputs
10 group bus injects
10 Aux bus injects
8 matrix bus direct inputs
3 solo bus inject inputs
2 external inputs (2 track return)
3 master bus inject
1 talk mic input
1 talk external input

A total XLR output count of 38 are:
10 audio group outputs
10 Aux outputs
8 matrix outputs
3 master outputs
3 solo outputs
3 local outputs
1 talk external output

A total of 254 balanced 1/4 inch jacks for inserts are:
48 input channel insert sends
48 input channel insert returns
10 audio group insert sends
10 audio group insert returns
10 Aux insert sends
10 Aux insert returns
8 matrix insert sends
8 matrix insert returns
3 master insert sends
3 master insert returns
(48 channel line inputs)
(48 channel direct outputs)

71 long throw faders for mix control

1539 automated switch functions are:
48 input channel Aux virtual assign switches
480 input channel VCA sub group virtual assign switches
480 input channel mute sub group virtual assign switches
48 input channel mute switches
10 audio sub group mute switches
10 Aux mute switches
10 auto mute switches
10 VCA master mute switches
8 matrix mute switches
3 master mute switches

The Heritage 1000 has a total of 70 peak program meters with 20 LED segments on all outputs and 11 LED segments on input channels.

Weights and Dimensions

24 channel - 20 mono/4 stereo
Dim A = 1540mm/60.62" Dim B = 1450mm/57.08"
85kg /187.4lbs

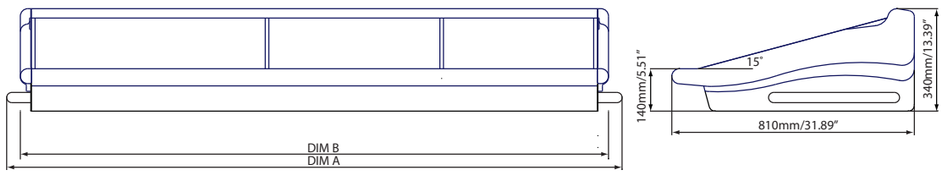
32 channel - 28 mono/4 stereo
Dim A = 1789mm/70.43" Dim B = 1699mm/66.9"
115kg /253.5lbs

40 channel - 36 mono/4 stereo
Dim A = 2039mm/80.28" Dim B = 1949mm/76.73"
130kg /286.6lbs

48 channel - 44 mono/4 stereo
Dim A = 2289mm/90.12" Dim B = 2199mm/86.57"
151kg /332.9lbs

56 channel - 52 mono/4 stereo
Dim A = 2379mm/93.66" Dim B = 2289mm/90.12"
160kg /352.7lbs

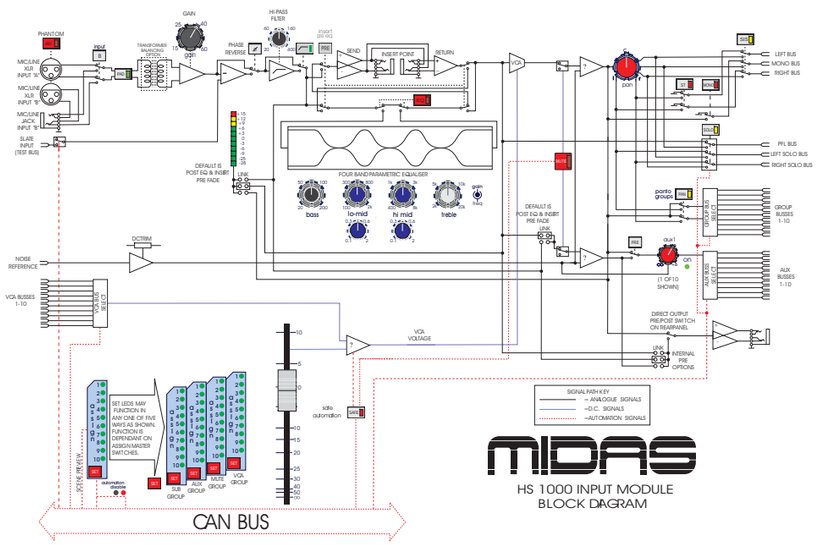
Weights are approximate and out of flight case
* The matrix outputs are fully expandable therefore, the data above is only a guide.



Heritage 1000 Specifications

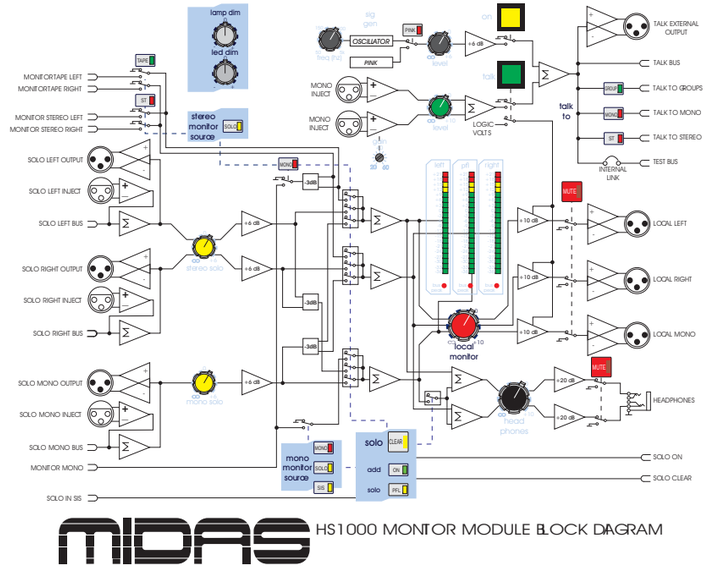
Input Impedance	Mic	2k Balanced	**Equaliser**	
	Line	20k Balanced	Hi pass Slope	12dB / Oct
Input Gain	Mic	Continuously variable from all faders at 0dB + 15dB to + 60dB	Hi pass Frequency	Continuously variable -3dB point from 20Hz to 400Hz
			Treble Gain	Continuously variable +15 dB to -5dB Centre detent = 0dB
	Mic + Pad	Continuously variable from - 15dB to + 30dB		
	Line Level Inputs	0dB	Treble Shelving Freq.	Continuously variable -3dB point from 1k to 20k
Maximum Input Level	Mic	+6dBu		
	Mic + Pad	+31dBu	Hi Mid Gain	Continuously variable +15dB to -15dB Centre detent = 0dB
	Line Level Inputs	+21dBu		
CMR at 1kHz	Mic (gain + 40dB)	80dB		
	Mic +Pad (gain 0dB)	50dB	Hi Mid Freq.	Continuously variable centre from 400Hz to 8k
Frequency Response (20 to 20kHz)	Mic to Mix (gain + 40dB)	+0dB to -1dB	Hi Mid Bandwidth	Continuously variable 0.1 Oct. to 2Oct Centre detent = 0.5 Oct
Noise (20 to 20kHz)	Mic EIN ref.150W (gain + 60dB)	-128dBu	Lo Mid Gain	Continuously variable +15 dB to -15 dB Centre detent = 0dB
System Noise (20 to 20kHz)	Summing Noise (48 channels routed with faders down)	-80dB		
	Line to Mix Noise (48 channels routed at 0dB, pan centre)	-75dB	Lo Mid Freq	Continuously variable centre from 100Hz to 2k
			Lo Mid Bandwidth	Continuously variable 0.1 Oct. to 2 Oct Centre detent = 0.5 Oct
Distortion at 1kHz	Mic to Mix (+ 40dB gain, 0dBu output)	0.03%		
			Bass Gain	Continuously variable +15dB to -15dB Centre detent = 0dB
Crosstalk at 1kHz	Channel to Channel	-90dB		
	Mix to Mix	-90dB		
	Channel to Mix	-90dB	Bass Shelving Freq	Continuously variable - 3dB point from 20Hz to 400Hz
	Maximum Fader attenuation	80dB		
Output Impedance	All Line Outputs	50 Ω Balanced Source to drive 600W		
	Headphones	to drive 8W		
Maximum Output Level	All Line Outputs	+21dBu		
	Headphones	+21dBu		
Nominal Signal Level	Mic	-60dBu to +10dBu		
	Line	0dBu		
	Headphones	+10dBu		

Block Diagrams



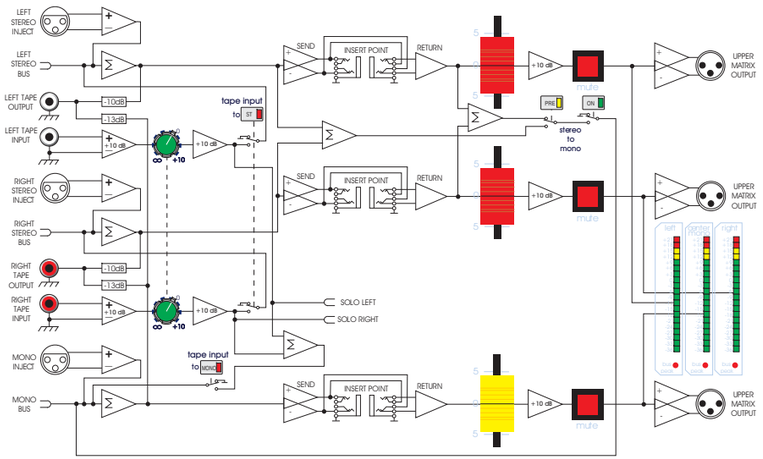
MIDAS

HS 1000 INPUT MODULE
BLOCK DIAGRAM



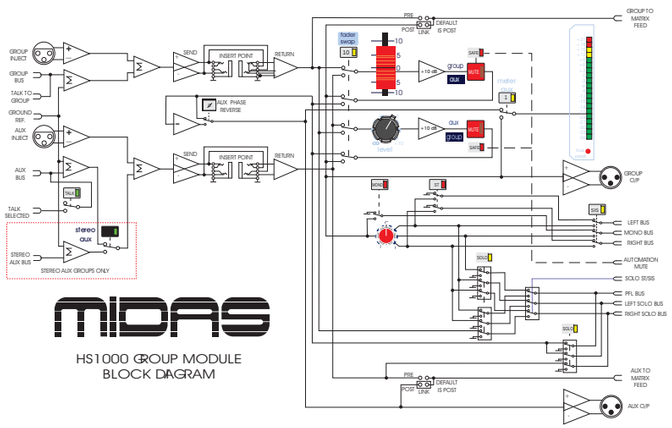
MIDAS

HS1000 MONITOR MODULE BLOCK DAGRAM



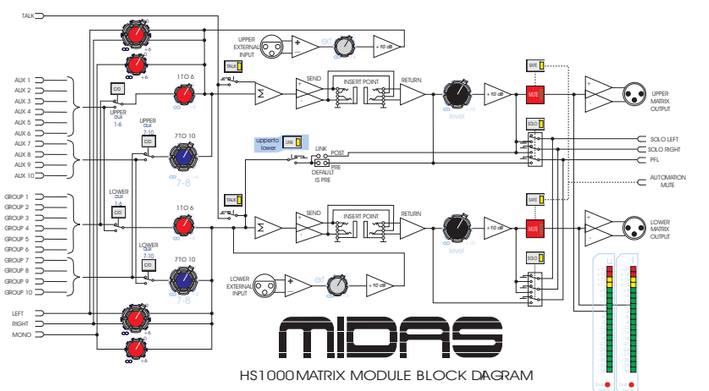
MIDAS

HS1000MASTERS MODULE BLOCK DAGRAM



MIDAS

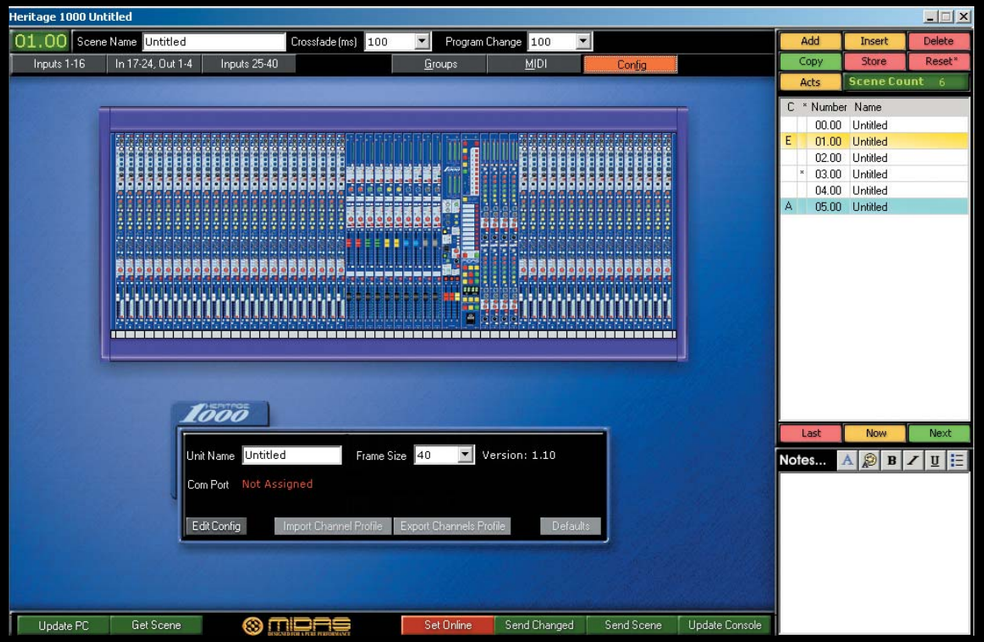
HS1000 GROUP MODULE
BLOCK DIAGRAM



MIDAS

HS1000MATRIX MODULE BLOCK DAGRAM

Heritage 1000 Library Manager Software



Midas and Klark Teknik ELGAR Framework

ELGAR is a software shell for a PC that allows Midas and Klark Teknik product control software, called Add-Ins, to operate.

ELGAR allows data from individual units, for example a number of Helix units and a Midas Heritage 1000, via the relevant Add-In to be stored within one show file on your PC. You can therefore have your entire show with you on your laptop, allowing you to fine tune settings in your hotel room and then just upload it later at the venue. ELGAR will also ensure that the correct Add-In will only communicate with the correct piece of hardware – in other words it will make certain that a Helix Remote Control Add-In will only talk to the Helix unit and not the Heritage 1000.

The Heritage 1000 library manager software is one of the Add-Ins available for the Midas and Klark Teknik ELGAR software shell. This award winning piece of software enables engineers to create scene settings on a PC which can then be uploaded to the Heritage 1000 as well as edit scene data downloaded from the console. As a result much of the console programming can be done offline in advance of the show, leaving more time for fine tuning during rehearsals which can then be downloaded to the PC to keep the settings in the show file current.

The library manager can be used online during a performance to provide a visual overview of the consoles settings. For example when snapshot scenes are recalled by the console the library manager automatically updates the PC.

Library manager can edit offline the following functions:

Mute states for input, output and group channels

Fader levels for the VCA groups with variable crossfade speeds

VCA and Audio subgroups assignments

Automute and Auxiliary group assignments

MIDI commands

As a result the Heritage 1000, with its small footprint and powerful automation system, coupled with the Library Manager software provides an extremely effective creative tool for a number of applications but in particular theatrical productions.

Klark Teknik Show Command and Solo Tracking System (STS)

Klark Teknik Show Command is a unique integrated system of hardware, software and Ethernet technology, which provides full control of loudspeaker system equalisation, management and routing from a choice of user-interfaces. The new DN9331 RAPIDE has been developed for show time control of graphic EQ functions, while a Wi-Fi tablet PC, in conjunction with ELGAR software allows for wireless freedom around a stage or venue during set-up and sound check. Show Command also has the additional benefit of a serial communication interface to Midas STS equipped consoles, providing the best possible combination of instant-access fingertip control and wireless freedom.

When Show Command is linked to Midas consoles in the Heritage, Legend and Siena range or the XL8, the STS or Solo Tracking System can be used. This means that when any solo key is pressed on the console, the EQ for that input or output (outputs only on Siena) is instantly shown on the Helix DN9340E Dual EQ or a wired wireless PC, ready for immediate control. Once displayed on your chosen user interface you naturally have complete access to all the Helix EQ functions allocated to that input or output. The graphic EQ portion of Helix will also be displayed on the DN9331 RAPIDE graphic controller if connected into the system.

A RS-232 connection is supplied on the rear panel of the Helix DN9331 and DN9340E for this purpose and up to 64 channels of Helix can be connected using standard CAT5 cables.

Connectivity

CAN Bus
CAN was originally used as the communication device for engine management systems in the automotive industry. Due to its rugged and reliable nature it is the perfect system to allow Heritage and Legend consoles to communicate with each other. Any mixture of Heritage or Legend Series console may be linked in this manner.

When linked, one console becomes the master and all the other linked consoles become slaves. Linked functions include all automation systems including scene recall, VCA and Solo logic.

MIDI
A Heritage console allows you to fire four different MIDI messages per scene thus allowing you to control outboard devices with the MIDI standard. The console may also be configured to recall scenes triggered by MIDI messages.

This is simply programmed via a menu in the automation section of the console.

RS-232 Heritage Utilities Software
The Heritage Utilities software (available from www.midasconsoles.com) is Windows software that will allow you to download new operating code into the console. It will also allow you to down and upload memories to and from the console and store them as PC files. This software also handles the transfer of automation functions from one console to another or to an extender via the digital CAN bus on the rear of the console.

PSUs and Packages

Power supply unit
A Heritage console can be powered from a single Heritage Series auto ranging switched mode power supply. However due to Midas' philosophy of delivering the complete package every console is supplied with two PSUs to allow for dual redundancy. When they are connected in parallel, using the supplied linking cables, the load is shared across each unit and if one of the power supplies fails, then the remaining unit will seamlessly and inaudibly take on the full load. The supplies have been designed to allow for flexible connectivity as full power can be taken from either the front or rear panel with the supplied 10-way output connector.

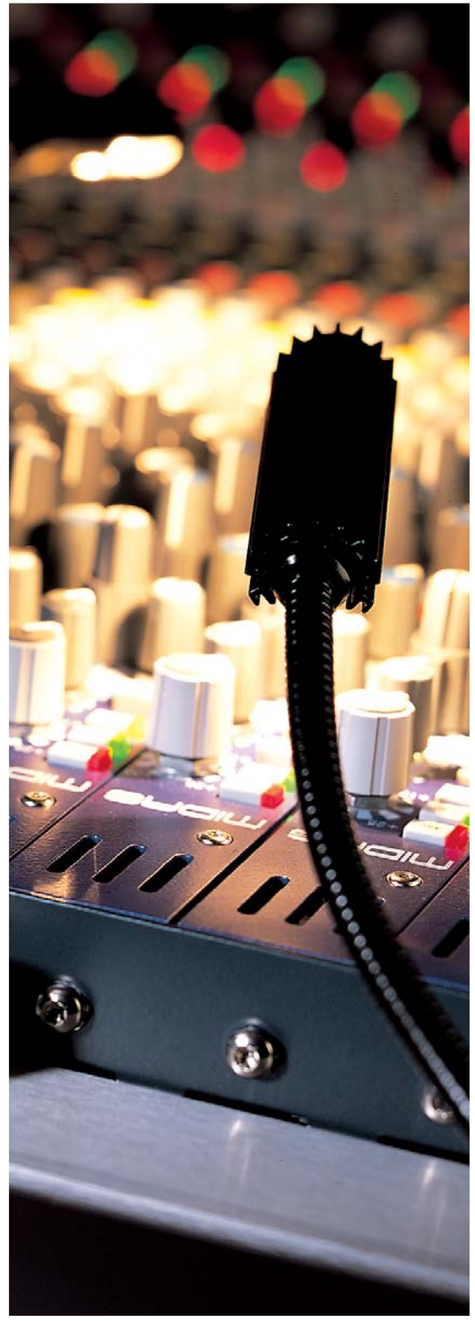
Input Voltage Range	100-240VAC
Max Output Power	750W
Operating Temperature	0-40C
Nominal Rails	+18V, -18V, +48V

Packages
Heritage consoles can be specified in a number of "turnkey" packages to suite your application. There is a touring package that consists of a Heritage, two power supplies including the linking cables, Littlites, dust cover and flight case. The theatre package is similar to the touring package however a crate replaces the flight case and you will also get as standard (except on a Heritage 1000) a scriptslide. The bobtail package, designed specifically for the US market, consists of a 48 channel Heritage minus the handles and with ultra thin side cheeks and a specially designed flight case suitable for a 90inch wide bobtail truck.

Easy Glide
An extremely useful tool is the Easy Glide which is included as standard in the theatre package and as an option in the touring package. Unfortunately the Easy Glide is not available for the Heritage 1000. Very simply the Easy Glide provides somewhere visible and handy for engineers to put their scripts, pens, mobile phones or any of the other things that typically clutter up the control surface. As the Easy Glide is designed to be moveable it is always out of harm's way, yet still within easy reach. It means that finally engineers can keep their work environments tidy yet still have access to the tools they need.

Easy Tilt
A collective sigh of relief went up from roadies and crew the world over when Midas came up with this revolutionary device for getting the heaviest mixing console from vertical to the horizontal working position and back to vertical again with just two people. Easy Tilt is the definitive solution to handling the weight of traditional analogue mixing consoles that are built to last. This clever device, available in two heights either 28" or 26.5", not only gets the console into position quickly and easily, but also provides a secure working platform for the console while it is in use, and then just as easily puts the console back onto its wheels in the flight case when the show is over.

Warranty
When you purchase a Heritage console, or in fact any Midas console, you will get an extra peace of mind with yet another industry first a 3 year warranty to guard against any possible problems arising from the desk or power supplies.



Midas Heritage Series

The Heritage Series of audio mixing consoles exemplifies the Midas tradition of impeccable sonic quality and outstanding technical specifications. These four consoles represent the state of the art in audio mixing technology, with features and electronics developed in direct response to the outstanding success of the Midas XL3 and XL4 consoles during the 1990's.

The Midas Heritage series embodies values arrived at following extensive consultation with numerous audio professionals the world over, from Rental companies to Theatre, from sound designers to mix engineers. This has resulted in a solid bedrock of expertise encompassing all aspects of console design and operation.

At every point in the critical audio path, our use of the highest quality components obtainable, ensures smooth, consistent performance, within a truly class-leading sonic, electronic and mechanical design concept.

Electronics derived in part from the Midas XL4 provide a superb dynamic range, very low noise floor, flawless audio path transparency and a beautifully warm EQ. Equally importantly, every Midas console has an impeccably solid construction with proven road-worthiness, using high quality mechanical components, a rugged frame and easily serviceable modular design - and is designed by engineers who have a personal interest in music and the needs of real world live performance.

Midas Consoles, Walter Nash Road, Kidderminster. Worcestershire. DY11 7HJ. England.
Tel: +44 1562 741515 Fax: +44 1562 745371
www.midasconsoles.com
DOC05-Heritage 10.04.2007